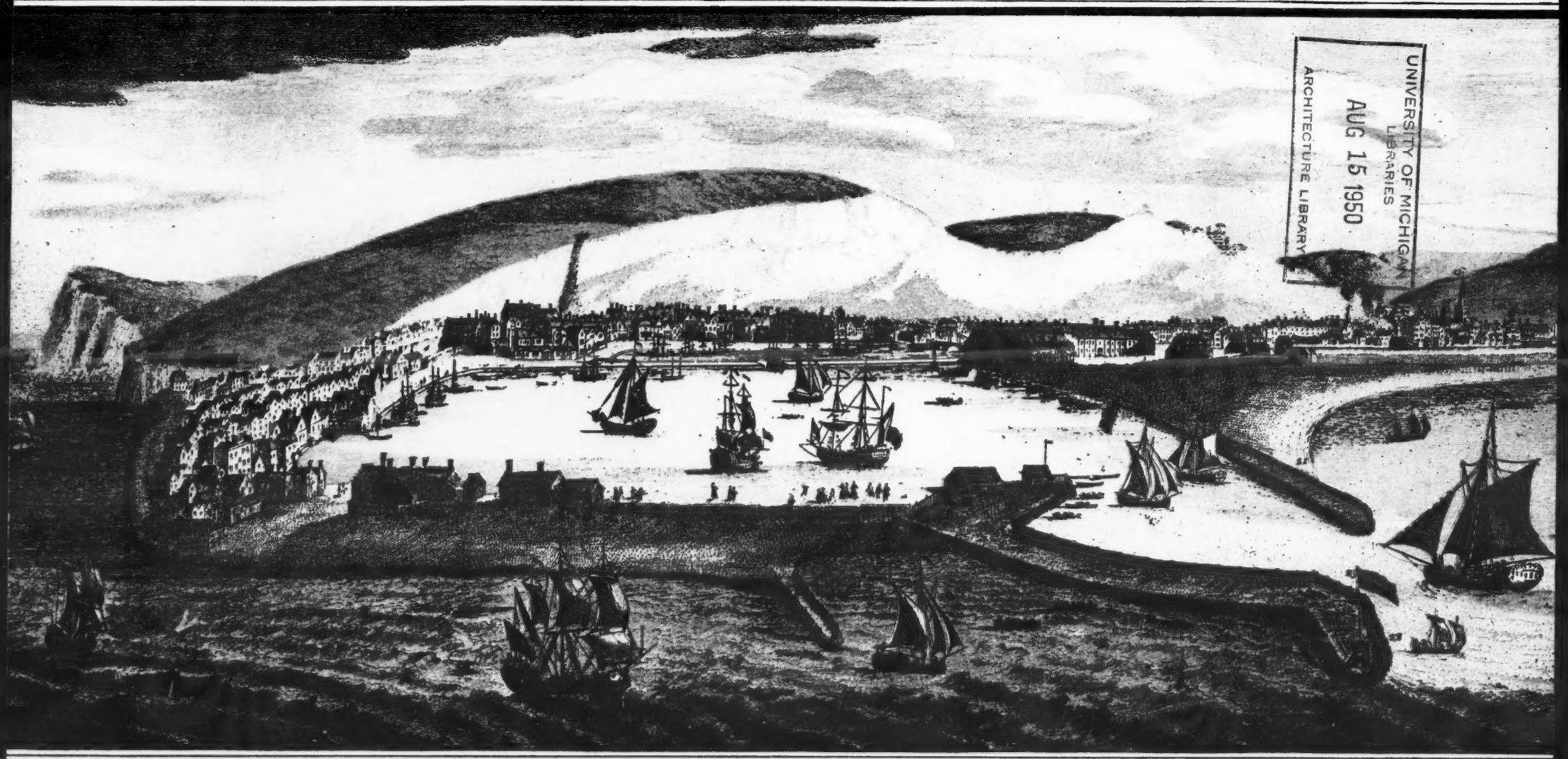
THE SOUTH PROSPECT OF DOVER, IN THE COUNTY OF KENT



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DOVOR, at present Dover, the Dubris of the Ancients and a Roman Port, is the Place whe
been the Scene of many important Transactions: At present, its great Glory is the Harbo
of the Sea haveing soon disjointed that Work, Q. Eliz: in Consideration of the great usefuln
for the repairing and mending the said Pier. Dover is one of the Cinque Ports and a very
was bound to fit out 21 Ships, of 21 Men each for the Service of the King. The old Town was
relating to the Cinque Ports are here done. Soon after the Conquest the Town was destroy
in a wealthy and flourishing Condition. Its magnificent Castle is a noble Monument of
has rendered it famous in most Places of the World. Here the Lord Warden of the Cinque P

THE ARCHITECTURAL REVIEW VOLUME CVIII NUMBER 644 AUGUST 1950 THREE SHILLINGS AND SIXPENCE

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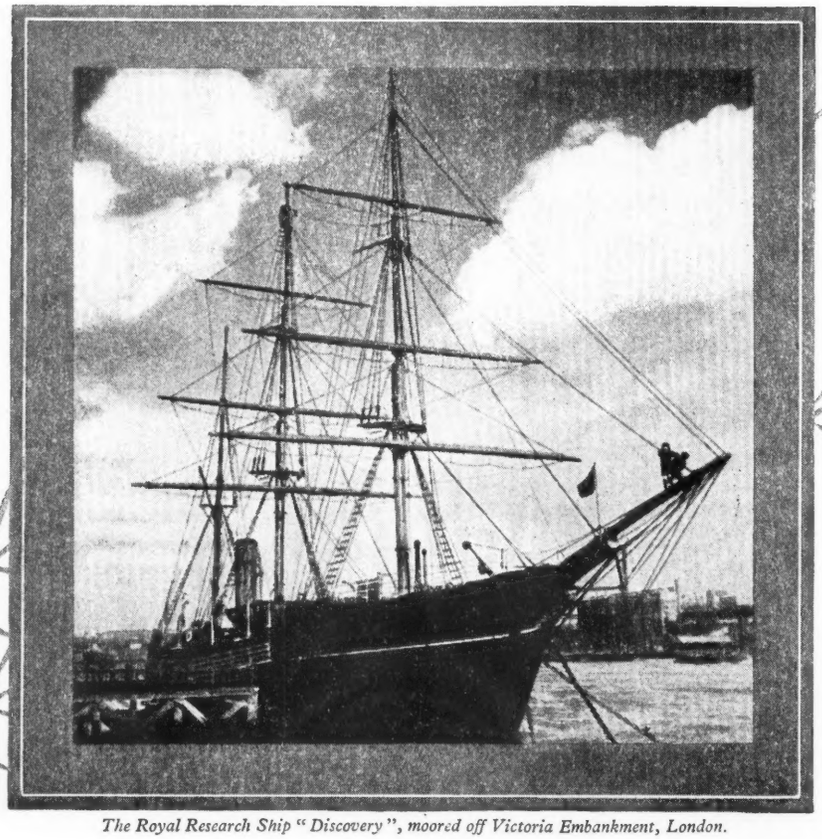
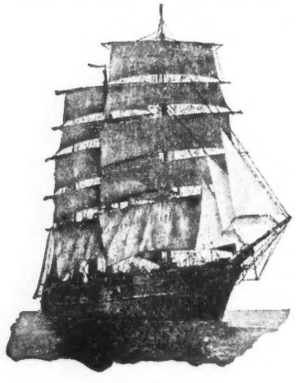
# Salute to R.R.S. "Discovery"!



*The Royal Research Ship "Discovery", moored off Victoria Embankment, London.*

Being a maritime people it is natural that the names of famous ships should resound throughout the pages of our history. We rejoice in them as being emblematic of countless gallant and self-sacrificing deeds. Such a name is "Discovery", forever linked with the memory of Captain Robert Falcon Scott, the renowned Antarctic explorer and his courageous associates. R.R.S. "Discovery", now moored off Pilgrim Pier, Victoria Embankment, London, serves as their most fitting memorial. She is owned by the Boy Scouts Association, and is used as a training ship for Sea Scouts, and also as a hostel for Scouts from all over the world; thus providing a constant inspiration to Youth.



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# Traductions Übersetzungen Переводы

THE ARCHITECTURAL REVIEW AUGUST 1950

## Août 1950

*Page* 81: *Au Sujet de Geddes, par Lewis Mumford.* Lewis Mumford profite de l'occasion fournie par la publication d'une nouvelle édition du volume de Patrick Geddes intitulé *Cités en Evolution* pour réévaluer la contribution rendue par ce dernier à l'urbanisme et à la philosophie civique. Ainsi que Mumford le fait remarquer, ce n'est pas facile actuellement d'apprécier toute la sensation qu'occasionna *Cités en Evolution* parmi les lecteurs de 1915, année de sa première publication, car il n'existait à cette époque presque pas de littérature concernant les cités, et un livre qui établissait un rapport entre la transformation des villes et la situation sociale et économique, ainsi que la culture de l'époque, représentait une conception d'une audace incomparable. Il est vrai, admet-il, que le temps a révélé certaines faiblesses dans la méthode dont Geddes abordait les problèmes de l'urbanisme. Comme d'autres de sa génération, il tendait à trop se confier à la nature raisonnable de l'humanité; 'il semblait croire que . . . du moment que les gens contemplaient ensemble la même carte et reconnaissaient les mêmes faits, ils verraient qu'il n'existait pas de différences essentielles d'opinion ou de politique entre eux.' En outre, en tant que représentant de son époque, il était convaincu que l'application de la science et de la technologie à l'ordre social ne pouvait qu'amener le progrès social; il ne tenait pas suffisamment compte du fait que les institutions et coutumes survivantes peuvent parfois subvertir la science et la technologie en faveur de leurs propres intentions. Malgré tout ceci, la valeur permanente de l'œuvre de Geddes, et surtout de son travail en tant qu'écologiste, 'l'investigateur laborieux des associations historiques et des relations mutuelles dynamiques, biologiques et sociales,' est établie sans aucun doute. De plus, elle revêt maintenant une importance spéciale du fait que les bénéfices que son génie et ses méthodes ont contribués à l'urbanisme, sont justement ceux que les administrateurs et les bureaucrates sont souvent amenés à laisser de côté dans l'intérêt de l'économie ou de l'efficacité.

*Page* 95: *La Ligne Vitale: Un Aperçu de Quatre Villes Balnéaires, par Gordon Cullen.* La mission de l'urbaniste, lorsqu'il s'agit d'une ville existante, est de conserver et d'intensifier le caractère individuel de la ville en question, caractère qui ressort de l'interdépendance des diverses activités y poursuivies. Or, en étudiant une ville quelconque de ce point de vue, nous verrons que son caractère s'exprime de façon la plus frappante, et aboutit, pour ainsi dire, le long d'une ligne, ou d'une série de lignes—composées soit d'une esplanade donnant sur la mer, soit d'un bord de rivière, d'une rue principale, ou d'un boulevard—où convergent et se trouvent le plus concentrées les activités en question. Ces lignes doivent donc faire l'objet primordial de l'étude de l'urbaniste; il doit veiller à ce qu'elles soient tracées non seulement à l'endroit approprié mais aussi correctement. Pour démontrer ce principe, Gordon Cullen a choisi pour cet article quatre villes au bord de la mer et il fait ressortir comment le caractère de chacune pourrait être intensifié moyennant le développement de cette ligne si importante. Le choix de plages a été fait parce que la clarté de la ligne divisant la terre de la mer fournit un exemple parfait à une étude initiale. Cependant, la méthode peut aussi bien s'appliquer aux villes loin de la côte.

*Page* 112: *Embrasures de Fenêtres, par Dex Harrison.* Peu de choses déterminent le caractère d'un bâtiment si efficacement que la façon dont les embrasures de fenêtres sont construites; peu de choses, cependant, sont aussi strictement influencées par les exigences et limitations physiques. Dex Harrison examine dans cet article la raison d'être des différents genres de fenêtres, depuis celle à guillotine de la période Georgienne jusqu'au 'brise-soleil' brésilien et au mur-fenêtre californien; il démontre comment le climat et la géographie ont donné lieu à des effets qui sont souvent attribués au caprice de l'architecte, et discute les facteurs techniques et économiques régissant la construction des fenêtres de nos jours.

AVIS AUX PERSONNES DESIRANT S'ABONNER A LA REVUE

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## August 1950

*Seite* 81: *Mumford und Geddes.* Eine neue Ausgabe von Patrick Geddes' *Cities in Evolution* veranlasst Lewis Mumford zu einer abermaligen Würdigung von Geddes' Untersuchungen in Bezug auf Stadtbau und die Philosophie des menschlichen Zusammenlebens. Mumford betont dass es heute nicht leicht sei zu begreifen, wie aufregend *Cities in Evolution* 1915, im Jahre ihres Erscheinens gewirkt hat; damals gab es tatsächlich keine Literatur über Stadtanlagen, und ein Buch, das die Anpassung der Städte an die soziale, ökonomische und kulturelle Lage untersucht und fordert, war von neuer und unerhörter Kühnheit. Mumford gibt zu, dass die Zeit gewisse Schwächen in Geddes' Auffassung des Grosstadtproblems aufgezeigt hat. Wie seine ganze Zeit hat auch er die Rolle der Vernunft im Leben der Menschheit überschätzt. 'Geddes scheint zu glauben, dass wenn Menschen die gleiche Landkarte betrachten und die gleichen Tatsachen erkennen, sie in ihrer Lebensauffassung und in ihrer Politik im wesentlichen übereinstimmen.' Als Mann seiner Generation hat er geglaubt, dass Wissenschaft und Technik zwangsläufig sozialen Fortschritt erzeugen, er hat unterschätzt, in welchem Masse soziale Einrichtungen, Sitten und Bräuche Wissenschaft und Technik ihren eignen Zwecken unterordnen. Aber all dies berührt die eigentliche Bedeutung von Geddes' Werk nicht und am allerwenigsten seine Bedeutung im Zusammenfassen der verschiedensten Faktoren. 'Mit nie versagendem Scharfblick hat er historische Zusammenhänge und dynamische, biologische und soziale Beziehungen erkannt.' Gerade die Dinge, die er infolge seiner Weltanschauung und Methode in seine Pläne und Stadtanlagen einbezogen hat, werden von Verwaltungsbeamten und Büreaukraten aus Sparsamkeits- und Tüchtigkeitsgründen gern übersehen.

*Seite* 95: *Lebenslinien eine Untersuchung von vier am Meer gelegenen Städten von Gordon Cullen.* Die Aufgabe des Stadtbaumeisters, soweit bereits bestehende Städte in Frage kommen, besteht darin, den individuellen Charakter der betreffenden Stadt zu schützen und zu betonen, da er von der Wechselwirkung der dort betriebenen Tätigkeit bestimmt wird. Wenn man eine Stadt unter diesem Gesichtspunkt betrachtet, so wird man finden, dass sie einen ganz klaren und eindeutigen Charakter hat, und dass sie sich auf eine oder mehrere Linien festlegen lässt: Anlage am Meer, an einem Fluss, Hauptstrasse, Boulevard—dort wo das Leben der Stadt unter stärkstem Hochdruck verläuft. Diese Linien beanspruchen die grösste Aufmerksamkeit des Städtebauers; er muss darauf achten, dass sie in der richtigen Weise und am richtigen Platze gezogen werden. Um dies Prinzip zu veranschaulichen, untersucht Gordon Cullen vier Küstenstädte und zeigt in jedem Falle wie ihr Charakter betont werden kann, wenn man die wesentlichen Linien beachtet. Küstenstädte wurden gewählt, weil sie infolge der Eindringlichkeit der Land- und Seelinie ein Muster-Beispiel für eine erste Studie sind. Aber die Methode kann in gleicher Weise bei Binnenstädten angewandt werden.

*Seite* 112: *Fenster in der Wand von Dex Harrison.* Wenig Dinge bestimmen den Charakter eines Gebäudes in einem solchen Masse wie die Behandlung seiner Fenster, aber wenig Dinge sind in diesem Masse von natürlichen Notwendigkeiten und Grenzen bedingt. Dex Harrison gibt im vorliegenden Aufsatz rationelle Erklärungen für verschiedene Fenstertypen und ihre Behandlung, vom georgianischen Schiebefenster zum brasilianischen Brise-soleil und der kalifornischen Fensterwand. Er zeigt in welchem Masse Klima und geographische Lage Wirkungen geschaffen haben, die man oft für die seltsame Grille eines Architekten hält und untersucht die technischen und ökonomischen Faktoren, die die heutigen Fensterentwürfe bestimmen.

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# Август 1950 г.

## КРАТКОЕ СОДЕРЖАНИЕ СТАТЕЙ

Стр. 81. **МАМФОРД О ГЕДДЕСЕ.**

Люис Мамфорд, по случаю появления нового издания книги Патрика Геддеса „Эволюция Городов", в этой статье делает переоценку услуг Гедесса в области планирования городов и изучения стилей городостроительства. В наше время, трудно себе представить, пишет Мамфорд, до какой степени книга „Эволюция Городов" произвела сенсацию среди читателей 1915 г., когда она впервые появилась в печати. Так как в то время, литературы по планированию городов почти не существовало, и книга, выражающая мысль о существовании связи между трансформацией городов и существующими экономическими и культурными положениями, явилась неслыханной смелостью. Мамфорд признает, что время обнаружило известные слабости в подходе Геддеса к проблемам городостроительства. Как и многие другие представители его поколения, Геддес был слишком склонен полагаться на разумность человечества; „он повидимому представлял себе, что, если группа людей одновременно смотрит на одну и ту же карту, и одинаково подходит к тем же фактам, то они придут к заключению, что по существу, между ними нет никаких разногласий ни во мнении, ни в идеологическом подходе".

Опять, как человек своего времени, Геддес считал, что применение науки и техники к общественному порядку должно привести к социальному прогрессу; он слишком мало обращал внимания на то, как сохранившиеся социальные порядки и обычаи могут изменить направление, как науки так и техники, для своих целей. Но несмотря на все это, неизменная ценность работы Геддеса, в особенности как эколоджиста, „терпеливого исследователя исторических связей и динамики биологических и социальных соотношений", установлено вне всяких сомнений, и, в настоящее время, его работа имеет особую ценность в тех вопросах, где его взгляд и метод внесли в планирование, как раз то, что администраторы и бюрократы, в интересах экономии или продуктивности, склонны исключить.

Стр. 95. **ГОРДОН КАЛЛЕН.** ЛИНИЯ ЖИЗНИ: ИЗУЧЕНИЕ ЧЕТЫРЕХ ПРИМОРСКИХ ГОРОДОВ.

Обязанность того, кто ответственен за планирование городского ландшафта, там, где это касается уже, существующего города, сохранить и укрепить его индивидуальный характер, который является результатом совокупности различных активностей города. Рассматривая город с этой точки зрения, можно найти, что характеристика города лучше всего выявляется в его линиях — побережье моря, реки, главная улица, бульвар—там, где деятельность города больше всего заметна. Поэтому, эти линии должны быть первой заботой планировщика, и его обязанность следить, чтобы эти линии были на верном месте и в правильном направлении. В качестве примера этого принципа, Гордон Каллен демонстрирует четыре Британских приморских города и показывает, как в каждом случае, характерные черты города могут быть усилены при надлежащем внимании. Ввиду ясности побережной линии приморских городов, они были выбраны, в качестве идеального примера, для первого изучения. Но этот метод может быть применен, с таким же успехом, к городам, расположенных вдали от морского побережья.

Стр. 112. **ДЭКС ГАРРИСОН.** ОКНА В АРХИТЕКТУРЕ.

Немногое так решительно определяет характер постройки, как форма окони, в то же время, ничто так не предопределяется физическими факторами и ограничениями, как их форма и конструкция. В этой статье Дэкс Гаррисон рассматривает характеристику различных методов конструкций окон, начиная с „Джорджиэн сэш" (окна, с опускающимися и подымающимися рамами, стиль восемнадцатого века) и, кончая бразильскими „бризолей" и калифорнийскими окнами во всю стену. Он показывает, что различные конструкции окон являются не капризом архитектора, как это часто представляется постороннему глазу, а результатом климатических и географических условий.


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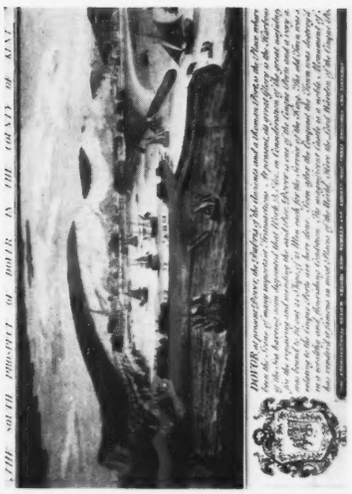
# THE ARCHITECTURAL REVIEW

*Volume 108 Number 644 August 1950*



**The Cover** The seaside town provides the clearest illustration of the way in which the essential character of a town is often revealed at a glance. The meeting of land and sea, with the accompanying concentration of activity—and therefore building—along the shore, makes the significant lines of force especially clear. (In this instance the town is Dover as engraved by S. & N. Buck in 1739.) On pages 97-106, Gordon Cullen examines the architectural expression given to lines of force—one that is common to inland towns as well—with reference to four specific seaside towns.


80 **The Well at Bolonchen**

81 **Mumford on Geddes** *by Lewis Mumford* A new edition of Patrick Geddes' *Cities in Evolution* is taken by Lewis Mumford as the occasion for a reassessment of Geddes' contribution to city planning and civic philosophy. It is not easy today, Mumford points out, to appreciate how exciting *Cities in Evolution* seemed to the reader of 1915, the year of its first publication; for at that time the literature of cities was practically non-existent, while a book which related the transformation of cities to the social, economic and cultural situation of the day was a conception of unparalleled boldness. Time, he admits, has disclosed certain weaknesses in Geddes' approach to the problems of urbanism. Like others of his generation, he was too inclined to place reliance on the reasonableness of mankind; 'he seemed to feel . . . that once people looked at the same map together and recognized the same facts, they would find that they had no substantial differences of opinion or policy.' Again as a man of his time, he believed that the application of science and technics to the social order necessarily made for social progress; he paid too little heed to the way in which surviving social institutions and customs can subvert both science and technics to their own purposes. But for all that, the permanent value of Geddes' work, and particularly his work as an ecologist, 'the patient investigator of historic filiations and dynamic biological and social interrelationships,' is established beyond all doubt, while today it has a special value in that the things which his outlook and method contribute to planning are just the things that the administrator and bureaucrat, in the interest of economy or efficiency, are tempted to leave out.

88 **Flats at Rio de Janeiro** *Architect: Lucio Costa*

95 **The Line of Life: A Study of Four Seaside Towns** One of the many duties of the townscapist, where an existing town is concerned, is to preserve and strengthen that town's individual character, which derives from the interaction of the various activities carried on in it. Now in studying a town from this point of view it will be found that its character expresses itself most clearly, comes to a head (as it were), along a line, or a series of lines—seafront, riverside, high street, boulevard—where those activities converge with maximum pressure. These lines, then, must be the planner's first care; he must see that they are drawn both in the right place and the right way. As a demonstration of this principle Gordon Cullen here takes four seaside towns and shows in each case how its character can be intensified by proper attention to the all-important line. Seaside towns have been chosen because the clarity of the land-sea line makes it the perfect example for a first study. But the method may be applied equally well to towns far from the coast.

107 **Steel Rolling Mill at Scunthorpe** *Architect: Frederick Gibberd*

112 **Window into Wall** *by D. Dex Harrison* Few things determine the character of a building so certainly as the treatment of its window openings; yet few things are so strictly controlled by physical needs and limitations. In this article Dex Harrison examines the rationale of different types of window treatment, from the Georgian sash to the Brazilian brise-soleil and the Californian window wall; he shows how climate and geography have brought about effects that are often thought of as being due to the architect's whim and discusses the technical and economic factors governing window design today.

123 **Flats at Copenhagen** *Architect: Arne Jacobsen*

127 **Furniture**

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144 **Acknowledgments**


**Author** *D. Dex Harrison*, Member of the RIBA Practice and Competitions Committees and of the MARS Group. Since the war in partnership under the style of Harrison and Seel, having won a competition for an Exhibition and Concert Hall at Edinburgh in 1939. Building schools in Yorkshire and Hertfordshire and chiefly engaged at present as Chief Architect (Co-ordinating) for the Festival Gardens, Battersea Park. Publications include: 'Planning against Noise,' 'A Survey of Prefabrication' (with John Alberry and M. W. Whiting), 'An Introduction to Standards in Building,' 'A Hospital Replanned' (with M. W. Whiting).

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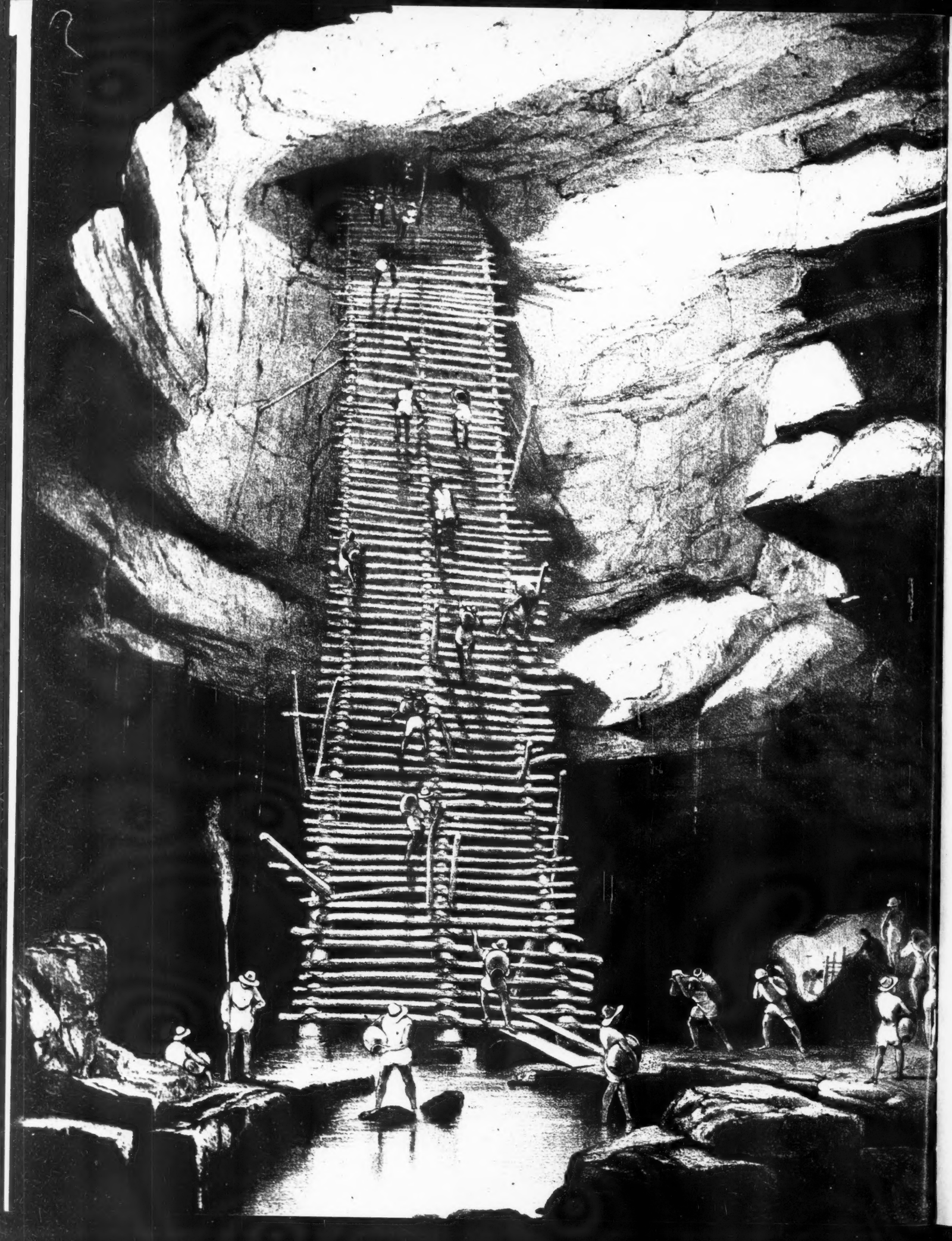
***indexes*** *As from, and including, the January 1950 issue a half-yearly index will be published as a supplement to the* REVIEW *and will appear shortly.*



**Frederick Catherwood's *Views of Ancient Monuments in Central America, Chiapas and Yucatan*, published in 1844, gave the world the first accurate delineations of the remains of Mayan civilization. In addition to their value as records, many of the lithographed plates in this volume have a boldness of design and a Piranesian drama—Catherwood had been infected by admiration for Piranesi through attending Soane's Royal Academy lectures—which put them in a class above the general run of archæological and topographical illustrations. The *Well at Bolonchen*, reproduced here, is one of the finest. Frederick Catherwood, hitherto an obscure figure, has been made the subject of a book by Victor Wolfgang von Hagen which is reviewed on page 134.**

☞

# MUMFORD ON GEDDES

**'Cities in Evolution', Patrick Geddes's influential book, which first appeared in 1915, has now been republished (William and Norgate, price 18s.), after being out of print for many years. Lewis Mumford, the distinguished American historian, sociologist and critic, himself a disciple of Geddes, makes the new edition of the book the occasion of an essay on Geddes's far-reaching contribution to city planning and civic philosophy and redefines his message in relation to present-day problems**

Patrick Geddes was born in 1854, two years before Bernard Shaw. One of Shaw's biographers rated Geddes the only contemporary whose conversation equalled Shaw's in brilliance and range; but apart from that, the life and work of the two men stand in striking contrast: so much so that the qualities of one bring into relief those of the other. Shaw was a man of letters who sought to startle his contemporaries by a new formula for originality: common sense disguised as perversity and perversity parading as common sense. Geddes was primarily a scientist, shy of committing his thoughts to writing, lest the provisional and dynamic and tentative became static and absolute. Since his was a truly original mind he was more ready to embrace a healthy truism than a meretricious originality: he valued truth itself rather than the vanity of its authorship. From the first, Shaw fell in love with his own image and spent the greater part of his life erecting a pedestal for it and laying wreaths around it. Geddes, on the other hand, had no concern with his own advancement and no skill in the Shavian art of publicity: his last pathetic bid for influence, his acceptance of a knighthood, an honour he had spurned in middle life, was indirectly responsible for his death.

For all Shaw's verbal audacity he was by nature a Fabian: a prudent man, with an essentially middle-class mind, concealing his inability to come to grips with the ultimate matters of human existence, birth or death, love or marriage or man's destiny, by contriving witty arguments, with a legalistic turn, about the more peripheral aspects of these subjects. Geddes was by instinct and intention the opposite type of personality: a Scipian, if I may coin the term, as different from Shaw as the bold Scipio Africanus was from Fabius. Geddes was committed to the frontal attack and to direct action, not because he loved power, but because he put the needs of life first. Even when Shaw was most verbally revolutionary, he usually played the game and sought the rewards of the game; while even when Geddes was most loyal to tradition he refused to play the game. Though Geddes sought to become a teacher, he refused to qualify for a degree; though he held a professorship in botany he taught only for three months in summer term: though he helped to found the Sociological Society and though the Martin White chair of Sociology at the University of London was founded for his occupancy, he did so little in his probationary lecture to win the approval of the University Committee that they turned him down. Once Shaw was well started as dramatist his career was engulfed by success; whereas Geddes's life was, superficially, a long succession of failures: crowned by the final failure of his last decade, the heap of stone buildings and exotic gardens at Montpellier which he called the Collège des Ecossais: an attempt, in defiance of his own philosophy, to transmit ideas through buildings instead of through other personalities.

Yet these contrasts and antagonisms between Shaw and Geddes need not wipe out all the essential qualities they had in common, little though that brought them together: they shared high spirits, a gift for satiric criticism, and a savage contempt for sham; and if any single philosophy threads through Shaw's work it is that of evolutionary vitalism; a doctrine of the

primacy of life both men derived from a scientific source, Darwin, and a humanistic source, John Ruskin. The preface to Man and Superman, and the Metabiological Pentateuch of Back to Methuselah, even parts of Major Barbara, float on the same stream of ideas that carried Geddes along: both men were vitalists, rather than mechanists; and both were ultimately 'Lamarckians' as well, in that they gave to the organism an active role that the purely negative theory of natural selection erroneously overlooked. In an ideal world Geddes and Shaw, who encountered each other from time to time, at least in the meetings of the Sociological Society, in the first decade of this century, should have been allies and co-partners, lending each to the other his own special strength; but, as so often happens with contemporaries, they were hardly close enough to graze each other as rivals, to say nothing of becoming friends. So each lost what the other might have given him: if Geddes had studied the arts of winning an audience as carefully as Shaw, and if Shaw had acquired any of Geddes's gift for detachment and impersonality, they both might have left a deeper mark on their age.

If Geddes died a little prematurely, Shaw alas! outlived himself by almost a generation: after St. Joan little but hollow echoes and shallow cackles remain even in his dramas, while his judgment of men and events revealed progressively the weakness of the mind that had hailed Houston Chamberlain's rubbishy Foundations of the Nineteenth Century as one of the great books of our age: so his words spelled confusion, and his admiration went forth to tyrants and dictators. As a result, Shaw has become an anachronism, and, one grieves to say of a youthful idol, a figure of folly, even during his lifetime; whereas Patrick Geddes, though dead these eighteen years, is fast becoming a rallying centre for the best minds of this generation: his thought, like that of his old associate and friend, Kropotkin, will probably guide the future, since the mechanists and the Marxists, in the present hour of their triumph, demonstrate the failure of their philosophies to do justice to either life or the human spirit.

Geddes is primarily the philosopher of life, in its fullness and unity: his doctrine rests on the perpetual capacity of life to renew itself and transcend itself: a capacity first interpreted in the sequence of evolutionary forms, and now in the extra-organic transformations brought about by man in his personality and culture. Other biologists have described life in terms of assimilation and responsiveness, of sensitiveness and growth: but Geddes added to the usual list of organic traits a quality he himself exhibited to the utmost degree: that of insurgence: a capacity to overcome, by power or cunning, by plan or dream, the forces that threaten the organism. Above all, he exemplified a robust wholeness of personality, ready to meet life at every level and to make the most of every occasion: he was against the pseudo-efficiency of specialization, which creates efficient machines and ruins good men. He himself refused to be pigeonholed in any single compartment, as botanist, sociologist, educator, artist, or townplanner; and he paid a heavy penalty for this refusal. Though Geddes had a high professional competence in every field he entered, his colleagues tended to accord him a lower status than he was entitled to. Instead of perceiving that Geddes's capacity for co-ordinated and interrelated thinking was a far more exacting discipline than any single specialism demanded, Geddes's conventional contemporaries saved their own pride by treating this special capacity as inferior to their smaller gifts.

Fortunately for those who came after him, Geddes took all knowledge as his province and all life as his field of action; and by his example he has made it easier to introduce organic methods of thought and action into aspects of life hitherto severed, amputated, discrete. But Geddes's immediate influence was mainly a direct personal one; his books, even when supplemented by his manuscripts and notes, were only a small part of his total productivity. For that reason, as year by year the people who were acquainted with Geddes diminish, his written work—meagre and ineffectual though it is—takes on greater importance than it did in his lifetime. Hence one's special welcome for the new edition of *Cities in Evolution.*

**cities in evolution: new edition**

*Cities in Evolution* came out in 1915: apart from his comprehensive study of the parks and civic institutes of Dunfermline, this was Geddes's first book on the subject of civics and urban development; and if one sets aside his town planning reports, it was also his last. The present edition, edited by Arthur Geddes and Jaqueline Tyrwhitt, is both greater and less than the original text. The book was not a closely woven treatise, but a series of papers; and because

some of these papers have long since become dated, the editors have omitted five chapters. These deletions are well justified, and Geddes himself would have been the last to insist on pious adherence to the letter of the original text. In only one respect does the editing seem to me a little ruthless: namely in the omission of Geddes's characteristic story of what happened to Cinderella's kitchen, when the proud sisters dismantled her abode and her working utensils to bedeck other parts of the house. That parable still seems to me in Geddes's best vein: condensing centuries of history into a few memorable images; so I regret the loss.

But if the editors have eliminated some of the vitamins with the chaff, they have also fortified the loaf with ingredients that were not contained in the original book; and for a generation that hardly knows Geddes, except at second hand, these additions more than make up for the losses. First, they have added part of a lecture on the Valley Section given by Geddes at the New School for Social Research in New York in 1923. Though the editors have also left out Geddes's original illustrations for the book, they have again more than made up for this by utilizing illustrations from the second Town Planning Exhibition, accompanied by a text by Geddes himself, drawn from the first exhibition's catalogue of 1910. Finally, the editors have published in the generous appendix Geddes's 'Notation of Life' on 36 squares, an appreciative essay on his graphic presentation of inter-related phenomena by two keen, modern students, John Turner and W. P. Keating Clay, along with Amelia Defries's description of his final Dundee lecture, an essay from Geddes's Sunday Talks With My Children, and a synopsis of Geddes's life, based on Boardman's biography.

With the help of this supplementary fare, a representative part of Geddes's essential thought on cities and civilizations is now for the first time at hand. Before I attempt to estimate Geddes's message, I should like to forfend any possible disappointment, on the part of the reader who may feel a certain letdown on first encountering Geddes, by saying a more personal word about the book's original impact on the American reader thirty-five years ago.

**a personal note: 1915**

*Cities in Evolution* was first published in the second year of the First World War; and not a small part of my initial pleasure in its contents came from the way in which Geddes referred, without a word of rancour, to the sinking of his first Town Planning Exhibition en route to India by (to use his words) the 'vigilant and enterprising Emden.' There was something Olympian about Geddes's magnanimity in the face of this grievous loss of a lifetime's collecting. And it was the more striking because Geddes was a forthright critic of Prussianism in all its phases and had no doubts about the justice or the necessity of resisting with arms the military rule it sought to impose on the rest of the world. Geddes had greatness of soul as well as of mind; and though I never achieved any real degree of intimacy with him, that first sense of his greatness was not dulled by successive contacts. He could be wilful; he could be self-absorbed; he could even be tyrannical, with the ruthlessness of a man wholly intent on his own ideas, to the exclusion of any other human considerations that stood in their way. But behind such petty phenomena was a noble understanding. Perhaps what makes his writing so pregnant with thoughts beyond anything he actually expressed are the perpetual hints he gave of that magnanimity and amplitude of spirit.

*Cities in Evolution* opened a wider vista on a world I had first explored in reading his earlier volume on City Development. No member of the present generation, with normal opportunities for study and reading, can fancy how exciting any book on cities was before 1920: to say nothing of one like Geddes's, which related the transformation of cities to the social, economic and cultural situation of our time. Except for a few tracts on housing and municipal reform, a series of anecdotal histories, a handful of town planning treatises mainly retrospective in outlook, whether they went back to Versailles or Rothenburg, and finally Ebenezer Howard's brave utopian proposal for garden cities, the literature of cities was singularly barren: indeed, in English, almost non-existent. Though the nineteenth century was certainly, in a quantitative way, the greatest era of city building the world had ever known, it created its new urban environment without benefit of art or science. Neither the methods nor the goals of urban planning were understood: for the city itself, as an artifact of culture, had hardly been described; and without knowledge the last century lacked the power to create.

During the first decade of the present century, Geddes's lifelong survey of cities began to

take fruit in a series of papers on the sociology of cities, first presented as lectures at the Sociological Society, founded by him and his colleague Victor Branford. These were, I believe, the first systematic contribution to the sociology of cities. Though the Germans had done much important work on the historic origin of cities, and in France a new school of urban geographers were dealing with the geographic determinants of urban structure, few students had Geddes's grasp of both the geographic and the historical factors in the evolution of cities.

*Cities in Evolution*, however, was not a contribution to scholarship; its essential subject was the education of the citizen toward his understanding of urban processes and his active assistance in urban development. Using his own self-education, through study and practical activity as a basis, Geddes sketched out the background the citizen needed in history and geography and travel, in economics, politics, architecture, sociology. Thus at that juncture in urban history, *Cities in Evolution* performed the most valuable service that any single book could have performed: it taught the reader, in simple terms, how to look at cities and how to evaluate their development. See for yourself: understand for yourself: act on your own initiative on behalf of the community of which you are a part. That summarized Geddes's message. From the moment I gathered the import of Geddes's words, I began walking through the streets of New York and planning excursions into its hinterland with a new purpose: looking into its past, understanding its present, replanning its future became indissoluble parts of a single process: a task for all citizens, not merely for professionals.

Peering forth alone, the first green shoot in a garden that had hardly been spaded, *Cities in Evolution* had an effect that the much richer and fuller literature now available can scarcely produce. Like Wordsworth's Lucy, Geddes's book was as a star when only one is shining in the sky. The uniqueness of that moment cannot be recalled by the present re-publication of the book; but if Geddes's words seem as familiar as lines from *Hamlet*, it is only because by now they have successfully taken possession of us. Directly or indirectly, a large part of the essential thought of Geddes has been happily absorbed by both the theorists and practitioners of town planning and regional reconstruction. For all that, *Cities in Evolution* is no mere monument. Though time has disclosed certain weaknesses in Geddes's approach, we have hardly yet done justice to his merits; and for a long time to come Geddes's own personality will remain as a preservative of the text: a perpetual challenge to the academic, a threat to routineers, a curse upon the bureaucrats, and a blessing to re-enforce the self-respect and the humanity of the plain citizen.

**education for citizenship**

Patrick Geddes's approach to cities was coloured by his training as a biologist: he was a student of Huxley and in the direct line of descent from the great Victorian thinkers who gave an adequate interpretation, for the first time, to the impact of nature on man. Just as he was vividly aware of the persistence of primitive occupational types in the more complex social order of the city, so he was equally interested in the effect of geographic and economic factors on the higher life of the city: the effect of jute manufacture on Dundee, of silk manufacture on Lyons, of cotton on Manchester. As a naturalist, his first approach to cities, in *Cities in Evolution*, was by way of the population map, by whose shadings and colourings he showed that the cities of the twentieth century had ceased to be self-contained units, as in the Middle Ages, but were spreading and thickening along the lines of transportation into urban coagulations, 'man-reefs' as he called them: areas on which he bestowed the name of conurbation, a coinage that waited a generation before it found acceptance in England.

This new situation called for direct adaptations: first formulated by the Webbs from their quite different point of view in their New Heptarchy series. 'The old Borough Councils and County Councils,' Geddes pointed out, 'can no longer separately cope with what are becoming so plainly yet larger Regional and Inter-Regional tasks, like those of water supply and sanitation for choice. . . . ' That perception was a timely one; but Geddes, trusting to the slow processes of social interaction and growth, was reluctant to push on with the Webbs' programme of 'municipalization by provinces.' Instinctively he disliked the Webbs and all they stood for: their arid utilitarian outlook, their wooden formulæ, their wily managerial efforts; and that disagreement was a deep and vital one. But he himself seemed to feel that science, once sufficiently diffused, would take the place of active political pressure: that once people looked

at the same map together and recognized the same facts, they would find that they had no substantial differences of opinion or policy. Even when Geddes recognized the conflicts in interests and ideals that were currently expressed in politics, he believed that these would be nullified by the further advances in technology. In this disregard for non-rational factors, both attitudes were a little naive.

Geddes's hopes here were supported—somewhat mistakenly—by his brilliant analysis of the industrial revolution: he was the first to see that, so far from being a uniform transformation, due to a succession of related inventions, there were substantial technical differences between the first stage (paleotechnic), based on coal and iron and steam, and the second phase (neotechnic), based on the water turbine, electricity and the lighter metals. The essays defining these stages form the fourth and fifth chapters of *Cities in Evolution*. In this original contribution, both Geddes's observations and his intuitions were excellent, though, characteristically, he was more inclined to repeat his first discoveries than to work them out in any detail. Unfortunately, like most of the great thinkers of his period from Karl Marx to Henri Bergson, he was disposed to overestimate the direct effect of technics upon social life and to overlook the way in which surviving social institutions and customs can subvert both science and technology to their own purposes: the neotechnic city, based on the use of hydroelectric energy, which Tony Garnier had outlined with such startling clarity and beauty in his plans for the Rhone valley, did not automatically come into existence: rather, our new technical facilities, steel construction, electric lifts, electric railways, and motor cars, were all utilized to augment the congestion of the paleotechnic city and prepare further costly palliatives for its disorder. The hope that progress was immanent and inherent in the application of science and technics to the social order was one that Geddes shared with his age: he died, indeed, before he had a chance to confront the ultimate contradiction between science and human intentions: the fact that the most triumphant application of human thought to the understanding of nature, which has led to the release of atomic energy, has also, because of our social delinquency and moral depravity, endangered the very existence of the human race.

Both temperament and conviction led Geddes to centre his attention on education rather than on politics, though political activity is itself a powerful instrument of education. In *Cities in Evolution*, he was concerned with the preparation of the citizen for active citizenship: first of all by travel. Geddes believed that the way to overcome the current disparagement of the 'politics of the parish pump' was to first drink, as it were, from many different pumps. By travelling the student observes cities in the context of their regions and their cultures: all the better if he travels on foot part of the way and takes his sightseeing slowly. This outdoor education was an essential part of Geddes's civic philosophy, indeed, of his professional preparation as townplanner: a corrective for the limitations of one-sided views, second-hand knowledge, third-hand statistics. Moreover, the eye unifies what the practical mind breaks up and analyses: without the synoptic view, one cannot take in the complex inter-relationships of urban life, even though one utilizes Geddes's squared paper diagrams.

But travel must not merely be wide but intensive: applying the same methods to one's home one produces the Regional and the Civic Survey: both in their modern form inventions of Geddes though Mayhew and Booth had partly anticipated him. Geddes's slogan, Diagnosis before Treatment, has now been so generally accepted that it is in danger of being perverted into an end in itself: as with the physicians of Park Avenue and Harley Street, the mechanical technique of diagnosis, by sheer elaboration, may almost divert effort from the need for curative measures or the possibility of taking short cuts to health. Here the example of Geddes's Civic Survey of Edinburgh should serve as both encouragement and warning to the planner. Though Geddes knew that city in more intimate detail than any other, his Survey was but a pamphlet. In all creative thought, there is perhaps as great a danger in knowing too much as in knowing too little. Geddes, despite his insatiable curiosity and his capacious scholarship, always valued an ounce of direct 'acquaintance with' more than a pound of 'knowledge about.'

Since only a small fraction of the population travels widely, Geddes sought to make up for the lack of personal acquaintance with other cities, among the mass of citizens, by organizing Cities Exhibitions. In his day the film was still undeveloped and the documentary was almost non-existent: even the lantern slide projector was a clumsy machine to use. So Geddes chose

to use pictures and photographs, hung on walls and screens, as the main means of a comparative study of cities. Perhaps Geddes overrated the Exhibition as such, for these pictures and their captions did not do the work by themselves: when first used, Geddes himself, or his son Alasdair, was usually on hand, to provide, as it were, the sound track; and it seems doubtful to me if the pictorial presentation in a general survey is capable of doing all by itself that Geddes hoped. But Geddes was right in holding that a certain richness of visual background is a minimum requirement for making creative decisions in town planning: most people, as Mass Observation has demonstrated, are satisfied with their existing quarters, however mean, because they have no conception of a better alternative. Except in a few films, all of them inadequate, Geddes's successors have been backward in developing this powerful educational device.

Geddes made a further proposal toward civic education that is even more important: he proposed that City Surveys should have a permanent place of exhibition in a Civic Museum, thus lifting the dead hand of the archæologist and the garret-looter from the City Museums that many places now boast. Here again Geddes's ideas have waited more than a generation for anyone to perceive their importance and translate them into contemporary terms. The work of exploring city and region, adding fresh data and bringing existing knowledge up to date, should become a continuous educational enterprise, in which both children and adults might take part. The Land Utilization Survey of Britain showed how such a useful task might be carried through on a national scale with the aid of amateur investigators and school children; but in local areas an even richer kind of survey is needed: one uniting the past, the present, and the possible. In the very spirit of Geddes's thought, the educational authorities in Philadelphia have recently used the public schools to get their students to survey and replan their neighbourhoods. Thus the seed that Geddes originally planted is now beginning to send forth rootlets; and in time every town planning authority should have as a constant aid in the process of development both a continuous survey—rather than one hastily put together for some immediate use—and a body of citizens who themselves, as school children, have already explored their city and dreamed about its potential development: people capable of making effective demands and informed criticisms. In all these efforts we still have a long distance to go before we come abreast with Geddes's teaching and example, if only because we lack the passion and fury that made him live, like one of the ancients in Back to Methuselah, in the centre of a vortex of highly activated thought.

**the message of the ecologist**

By both training and general habit of mind Geddes was an ecologist, long before that branch of biology had attained the status of a special discipline: he had come directly into contact with the three men, Ernst Haeckel, Ray Lankester, and Peter Kropotkin, who had laid the foundation for the study of the co-operative activities of all organisms. And it is not as a bold innovator in urban planning, but as an ecologist, the patient investigator of historic filiations and dynamic biological and social interrelationships that Geddes's most important work in cities was done. He distrusted sweeping innovations and clean slates; as a biologist he knew that small quantities, as in traces of minerals in the diet, might be as important for urban life as large ones, and could be far more easily overlooked by stupid wholesale planning, done at a distance by people who over-valued T-squares and tidiness. Characteristically, one of his first innovations toward improving the congested slums of Edinburgh was not to map out an ideal system of open spaces, but to get hold of every small patch of unusable or unused vacant land, and, with voluntary effort, turn that into a tiny patch of garden or park. The process of 'conservative surgery,' as Geddes called it in one of his Indian reports, was essentially what he stood for: a process that respected the native style of life and sought to recapture and further its best intentions. He felt that if the right method were established, one which enlisted the interest and service of the plain man and woman, even of the school-child, a little leaven would in time leaven the whole loaf.

What Geddes's outlook and method contribute to the planning of today are precisely those elements that the administrator and the bureaucrat, in the interest of economy or efficiency, are tempted to leave out: time, patience, loving care of detail, a watchful interrelation of past and future, an insistence upon the human scale and the human purpose, above

all merely mechanical requirements: finally a willingness to leave an essential part of the process to those who are most intimately concerned with it: the ultimate consumers or citizens. 'The resorption of government', to use a phrase Geddes and Branford coined, was an integral part of the development of citizenship, and so of the improvement of cities. Like William James, Geddes was against all bigness, and against all the obvious manifestations of success. 'On pain of economic waste, of practical failure no less than artistic futility, or even worse, each true design,' Geddes noted, 'each valid scheme should and must embody the full utilization of local and regional conditions and be the expression of local and regional personality. "Local character" is thus no mere accidental old world quaintness, as its mimics think and say. It is attained only in course of adequate grasp and treatment of the whole environment, and in active sympathy with the essential and characteristic life of the place concerned.' This insistence upon sympathy and human-heartedness as the mark of a right attitude and relationship is one of the distinguishing marks of Geddes's planning philosophy.

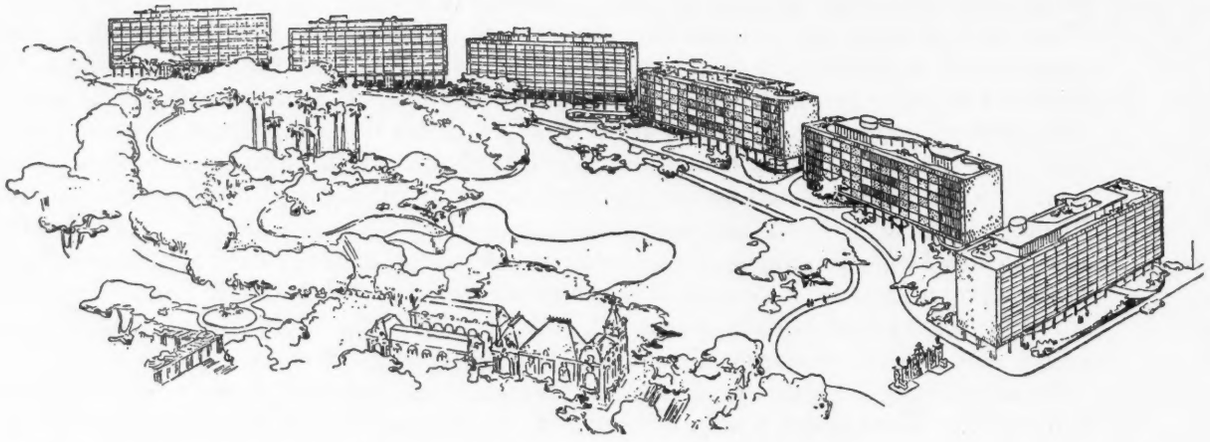
In describing Geddes's great virtues as civic educator and planner one has also defined his limitations. Though no one in his generation probably knew more about urban development, as both historian and sociologist, than Geddes did, his name is associated with no great constructive departure in city design itself. The garden city, the neighbourhood unit, the unification of fields, factories, and workshops—those master concepts in modern planning—were the products of other minds. Geddes appreciated these innovations and understood their importance; but his own contribution was of another kind. To say this is not to belittle Geddes or to lose sight of the value of his work as town planner: it is rather to call attention to the field in which Geddes's method and outlook were permanently valuable: the realm of education. Few of us can approach Geddes's thought here without becoming conscious of weaknesses in our equipment, of defects in our preparation. From Patrick Geddes both citizen and planner can learn how to look at cities, how to interpret their origins, their life, their cumulative history, their potentialities: how to understand not merely the daily life of place, work and folk, but those developments from Acropolis to Cathedral, from University to Concert Hall, from Cloister to Laboratory, that transform the very nature and goals of human life. Above all, Geddes was the exponent of life in unity, life in its fullest development and expression: he was the enemy of those frustrations and miscarriages that we too easily regard as 'normal' to civilization. At every level in the organic world, he saw that over-specialization produces arrests, regressions, failures of inventiveness: and he tirelessly sought to encourage the processes of insurgence, of self-transcendence, of creativity. For him the union of the artist and the scientist, the practical man and the idealist, the rural mind and the urban mind, was imperative: this was the condition of remoulding our cities and regions to the best uses of life. That lesson makes *Cities in Evolution* even today one of the classic contributions to civic improvement: indeed to the general renewal of life.

**postscript on Geddes's writings**

In his lifetime only a small part of Geddes's thought was published; and of that meagre literary output an even more diminished fragment is now available, since all his books are, I believe, out of print. Thanks to the zealous efforts of Arthur Geddes and Jaqueline Tyrwhitt, representing the Outlook Tower at Edinburgh and the Association for Regional Planning and Reconstruction in London, two modest volumes of Geddes's are now available. If there should be a general rallying to Geddes's outlook, evidenced by the further sale of these books, there is an even larger body of writing that demands publication: for one, an omnium gatherum, containing some of his extremely suggestive University Extension lecture syllabuses, parts of his Masques of Learning, passages from his biological treatises. . . . In time, it might even be profitable, with the general spread of graphic methods in sociology, to publish a pamphlet collection of Geddes's main diagrams, with a running explanation; and finally, since Geddes was at his best in intimate intercourse, and gave himself tirelessly to correspondence, a collection of his letters: whilst the latter sometimes were as impersonal as a textbook, repeating in private ideas to which Geddes had given public expression, they were also the repository of some of his most fertile thoughts—though these eggs, too often, would be unwarmed and uncared for by the recipient. Once the tide runs in Geddes's direction, it should deposit all sorts of precious flotsam and jetsam on the beach.

***Lewis Mumford***

## FLATS AT RIO DE JANEIRO



The scheme for building six blocks of flats in Eduardo Guinle Park, as it will be when completed. The two blocks on the right are finished and illustrated here. Another one is now under construction. In the foreground is the original mansion, surrounded by gardens, and between it and the flats a lake.

In 1909 Eduardo Guinle began the elegant park at Rio de Janeiro which to-day bears his name. Buying up various small properties and old houses in Gago Coutinho he extended his land upwards over the slopes of Santa Teresa Hill. He then engaged the architects Armando Telles, Gire and Bovet and other French artists such as the landscapist Cochet, the sculptor Emile Guillaume and the painter Piccard, to whom he entrusted the planning, decoration and landscaping of the park. By 1916 his project was realised; in addition to wide expanses of lawns, the lake and the pergolas, the park possessed works of art, varied but carefully selected flora, a hothouse full of rare plants, a powerhouse and, dominating it all, a residential mansion in the formal style of the period.

After Eduardo Guinle's death in 1941 his heirs decided to construct in the estate—without spoiling its beauty—a residential quarter in which modern principles of architecture and town planning could be put into practice. César Guinle entrusted the problems of an architectural nature to the architect Lucio Costa and the structural problems to the engineer Sydney Santos. A plan was made for six blocks of flats fitting in with the topography of the park. The landscaping, gardens and mansion were to be preserved, so the flats were disposed along a new road, well away from the road serving the existing mansion. Its exact line was determined by the slope of the land and by the need for approaches to the hilliest sections of the estate.

There was no alternative site for the new buildings, once it had been decided to preserve the park, but it meant partially sacrificing their orientation. In Rio de Janeiro a south aspect is the most satisfactory. An eastern exposure, whilst getting a good deal of sun, gets it in the early morning hours but is not cut off from the prevailing winds. A north frontage is exposed to strong insolation from the low winter sun, which, during certain months, can be very trying. Moreover this situation gets very little wind. The western exposure is the least satisfactory. The first, fifth and sixth blocks, therefore (reading from right to left in the sketch of the whole scheme, above), are satisfactorily situated: bedrooms and sitting-rooms facing south, service and circulation areas facing north. The second and third blocks have the least desirable aspect, with their main frontages facing west. The orientation of the fourth is more or less satisfactory.

Lucio Costa is the architect of the first three blocks, two of which (called 'Nova Cintra' and 'Bristol') are now finished and are illustrated on these pages, and the third of which (called 'Caledonia') is under construction. The architect of the remaining three blocks, not yet begun, will be Oscar Niemeyer.

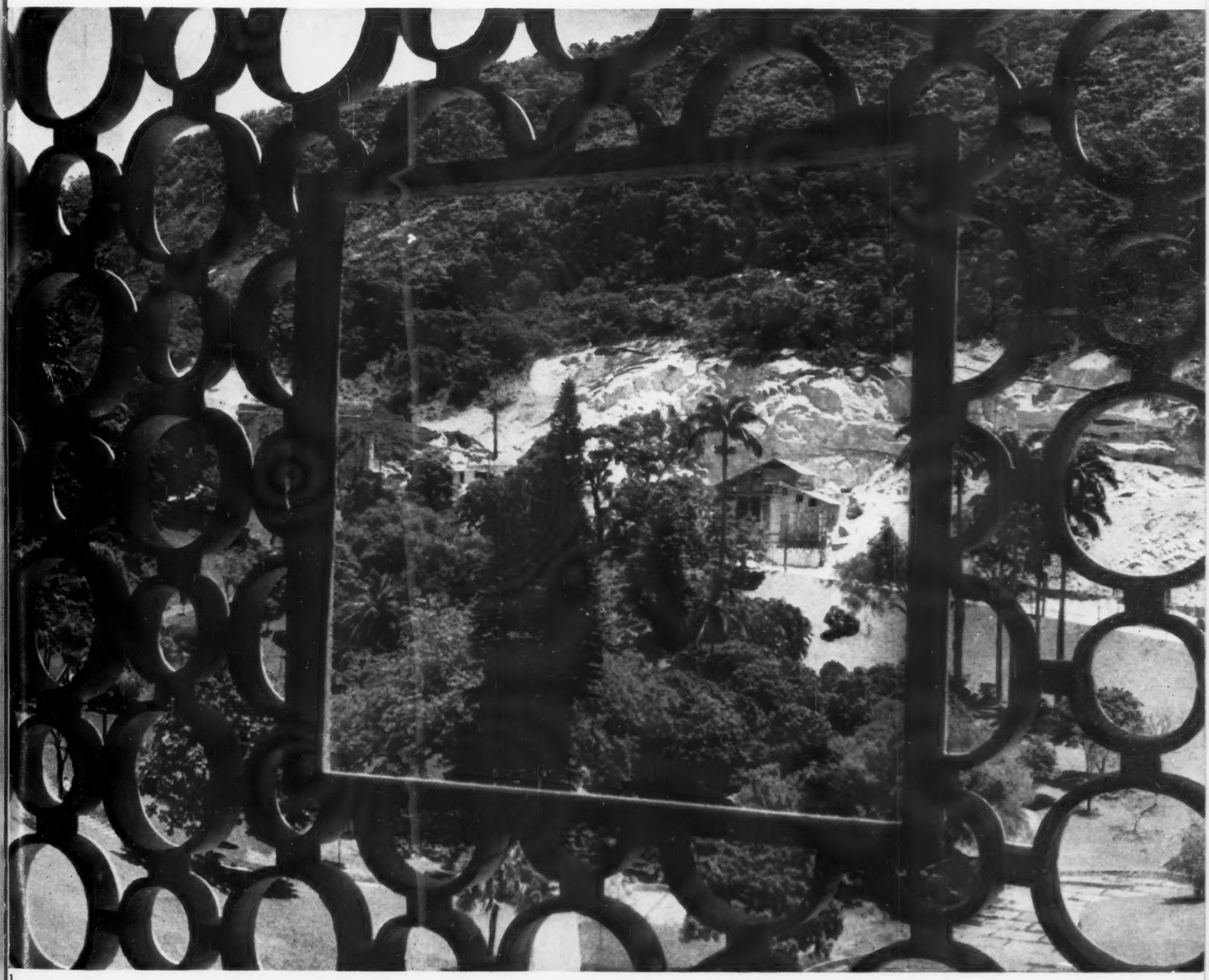
***NOVA CINTRA*** The ground floor of this block accommodates retail shops as well as the approaches to the upper storeys. The first floor, differently divided up from the rest, is planned for small apartments. The upper storeys of both 'Nova Cintra' and 'Bristol' consist of a mixture of duplex and one-floor apartments, only differing in detail. Plans of 'Bristol' only are therefore given on these pages. 'Nova Cintra' has duplex and one-floor apartments on the second to sixth floors and on the ninth floor, which has a smaller floor area than the others, one large apartment—about 10,000 sq. ft.—situated in the centre of a spacious roof garden. The single-floor apartments consist of a large living-room, three bedrooms, two bathrooms, and services. The duplex apartments, in addition to these rooms, have a study or office.

The living rooms and practically all the bedrooms face south-east and the other bedrooms and services face north-west. The principle of *plan libre* was adopted, with a uniform structure and four rows of columns, with a span of 13ft. 4ins. between each. Generally the floor sections are formed by double slabs of reinforced concrete jointed in two directions. The joints are filled by thin sheets of plywood supported on the lower slab and acting as a stiffener for the main floor slab. The

[*contd. on page* 91

# FLATS AT RIO DE JANEIRO

***LUCIO COSTA : ARCHITECT***



1

1, a view over the park, showing the dramatic landscaping, from one of the open grilles that form a large part of the façades of the flats on the side facing the park. The grilles, designed to break the force of the sun, are made of precast ceramic units.

3

2

2, "Nova Cintra", the first block to be finished, with a corner of "Bristol", the second block, just visible on the left. 3, a close-up of "Nova Cintra", showing the detached, glass-enclosed staircase towers.

*contd. from page 88*]
thickness of the slabs varies slightly throughout the structure, but in general the upper slab is a little over ¾ in. and the lower panel is twice that amount. The structure is exceptionally light.

The two staircases, also built of reinforced concrete, stand out from the main body of the building. They wind spirally round a cylindrical column from which small console beams spoke out—these are the risers of the steps. The treads of the steps are trapezoidal panels which are supported between two successive risers. The wall consists of a framework of vertical concrete posts, between which are glass panels. The treatment of the external surfaces of the building varies. The main façade, which is exposed to very little insolation, is treated as a *pan de verre* glass wall. Rio de Janeiro's daylight is however too intense for an entire surface of glass. To give a uniform treatment to this surface guillotine windows were decided on. These have two mobile leaves, with a third leaf, immobile and externally fixed, from floor to parapet level, with a space between it and the parapet into which both the other leaves can slide and disappear entirely.

All divisions on the rear elevation are protected either by verandahs or by terraces, the exterior cladding being varied to suit the purpose of each. The services are protected by vertical, fixed brise-soleils of fibro-cement set at an angle of 45° to the façade. The bedrooms and spans linked to the living-rooms are filled in with specially designed ceramic grilles, with a motif similar to that used in Arab architecture. The surface thus created forms a sort of brise-soleil of reduced depth, over which suitably chosen creepers will eventually spread so as to reduce still further the intensity of Rio de Janeiro's daylight. This effect has been made use of in some of the apartments in order to create verandah living-rooms.

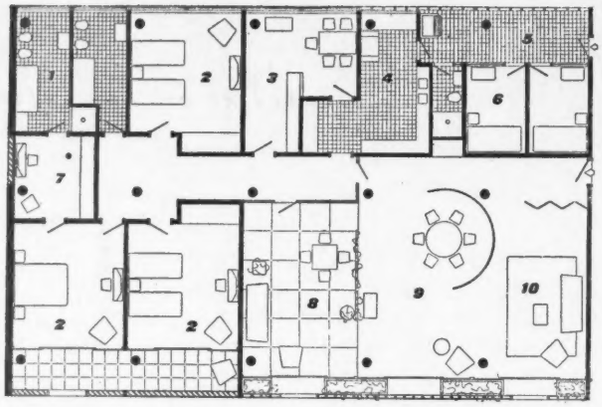
Internal divisions are generally in brickwork rendered with gypsum plaster. Others consist of light wooden partitions forming grilles, as in the partitions between entrance galleries and the sitting and dining-rooms. The floors of the bedrooms and sitting-rooms are generally of parquet blocks. Some sitting-rooms have a flooring of local marble, and the verandah sitting-rooms have red tiling. The outside finish of the end wall of the building is of red arenite. The framing of the front elevation is painted in light colours, and the glass of the fixed guillotine, forming the outside of the parapets, is blue.

***BRISTOL AND CALEDONIA*** In the second block, 'Bristol' (plans on next page), part of the ground floor is used for garages while the rest is clear, with pilotis. The upper floors, from the second to the seventh, consist of single-floor and duplex apartments. The first, third and fifth floors consist of two apartments of 3,150 sq. ft. and the lower floors of two of the duplexes. The second, fourth and sixth floors comprise single-floor apartments of 3,680 sq. ft. and the upper floors of the duplexes. These measure a total area of 3,360 sq. ft. The top floor is composed of one apartment only measuring 5,800 sq. ft. surrounded by a landscaped terrace. The third block, 'Caledonia' (now building), is similar.

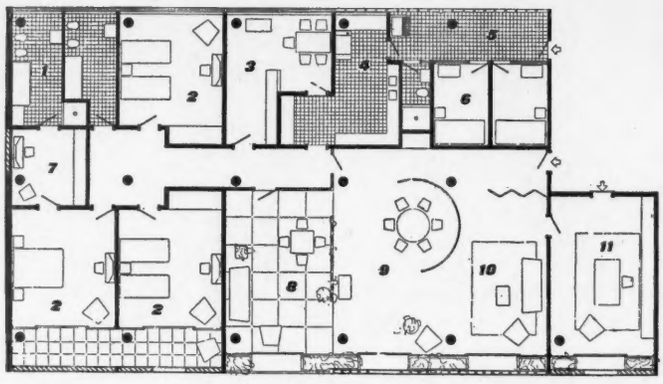
Greater protection of the main frontages of these two blocks was effected by use of alternate masonry and hollowed ceramic blocks, differing from the type used in the first building, and by the use of panels of fibro-cement forming brise-soleils. The frames of the buildings are formed by three rows of columns of reinforced concrete set at regular intervals, on which lie the jointed floors. The first floor, which houses some of the installations, is of greater thickness and without the internal framing used in other floors. Also precast slabs ½ in. thick with reinforcing on the outer edges are used, supported by small lateral shelves jutting out of the beams on their lower surface. The lower surface of this floor, like all others, is unbroken, the beams being contained in their thickness. The construction and finishes of the two blocks are otherwise similar to those of 'Nova Cintra.'

4, the first two blocks, "Bristol" and "Nova Cintra", photographed while still being built, to show the reinforced concrete slab and column construction.

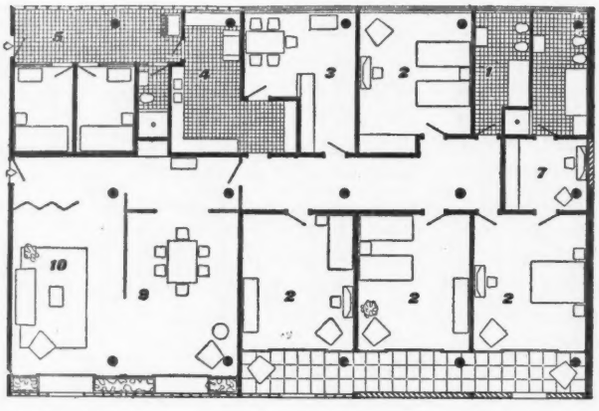
4



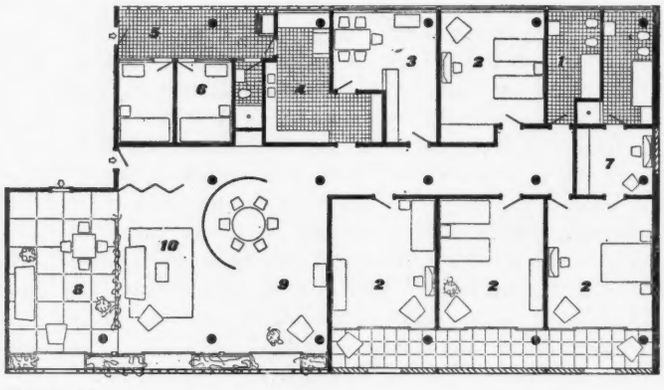
plan: type A



plan: type B



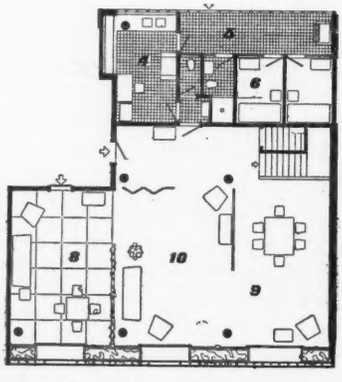
plan: type C

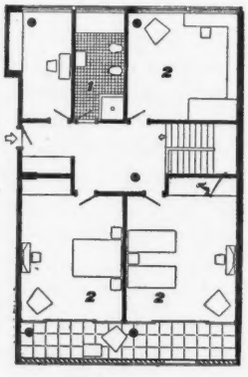


plan: type D

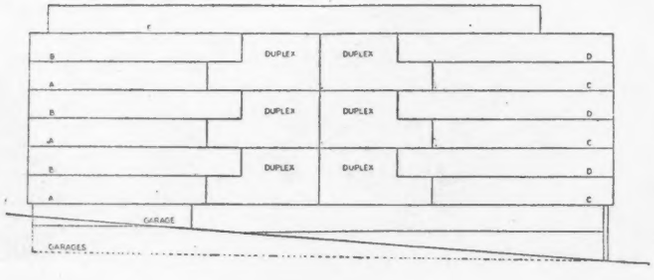
key

1, bathrooms. 2, bedroom. 3, lunch room. 4, kitchen. 5, service. 6, servants' rooms. 7, dressing room. 8, living-room verandah. 9, dining room. 10, living room. 11, writing room.



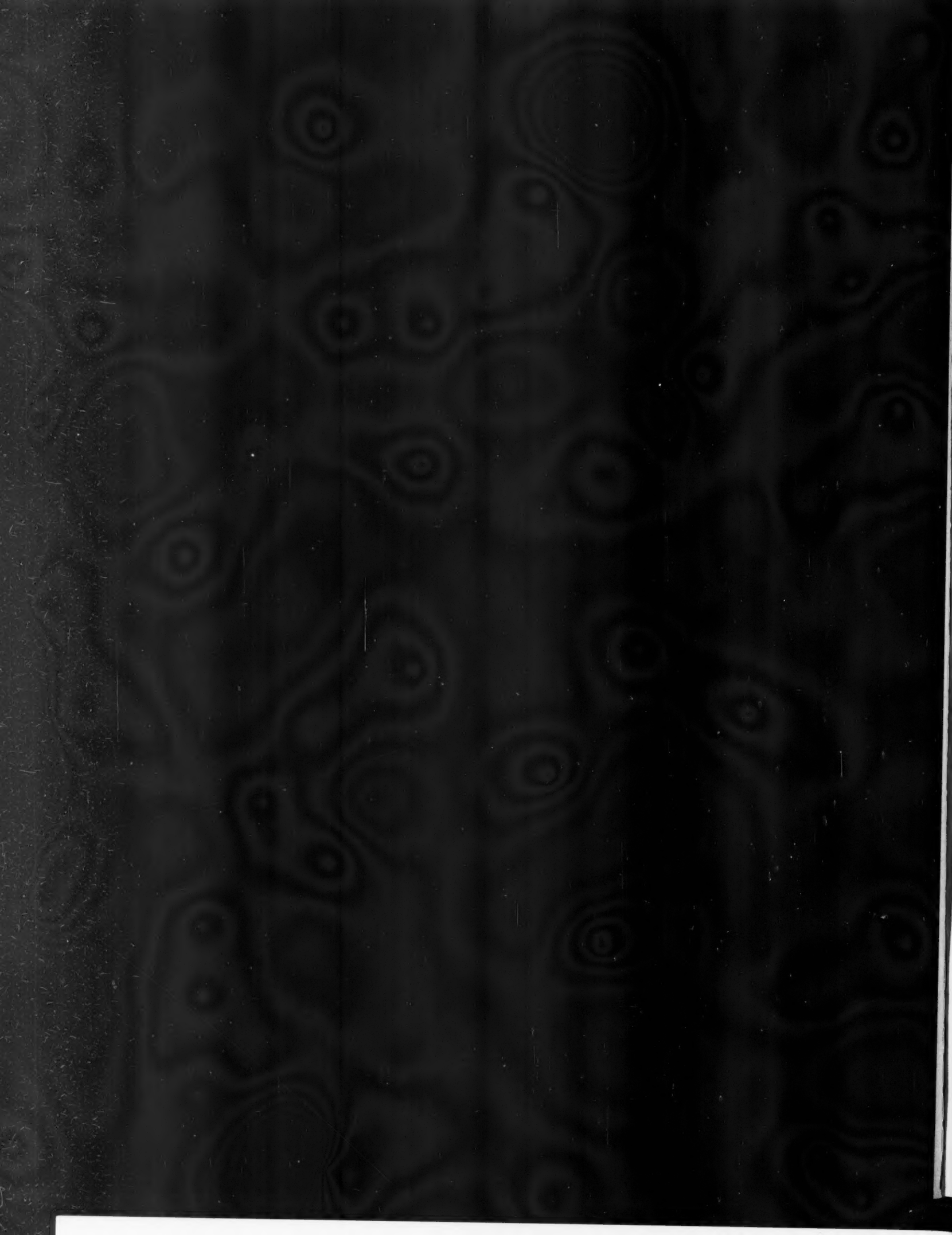


plans of duplex apartment




## FLATS AT RIO DE JANEIRO

A diagrammatic longitudinal section of the second block, "Bristol", showing the arrangement of duplex and single-floor apartments, detailed plans of which are given above. The planning of the other completed block is similar, with minor variations.



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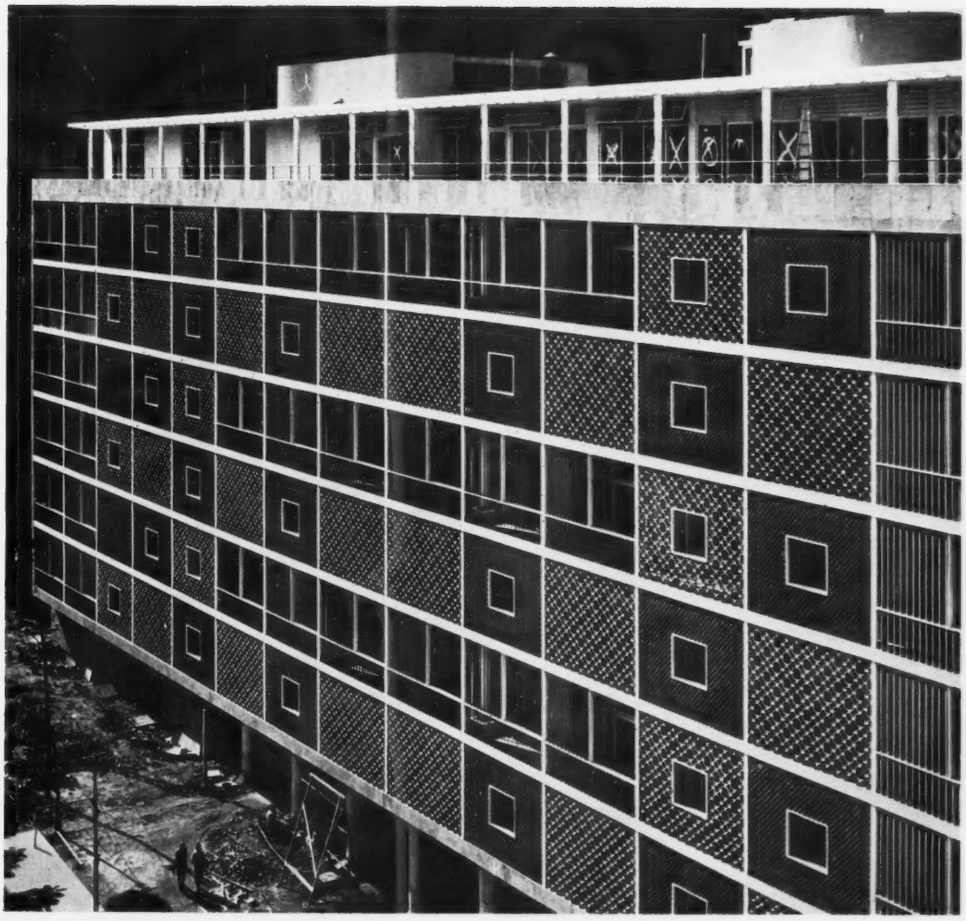
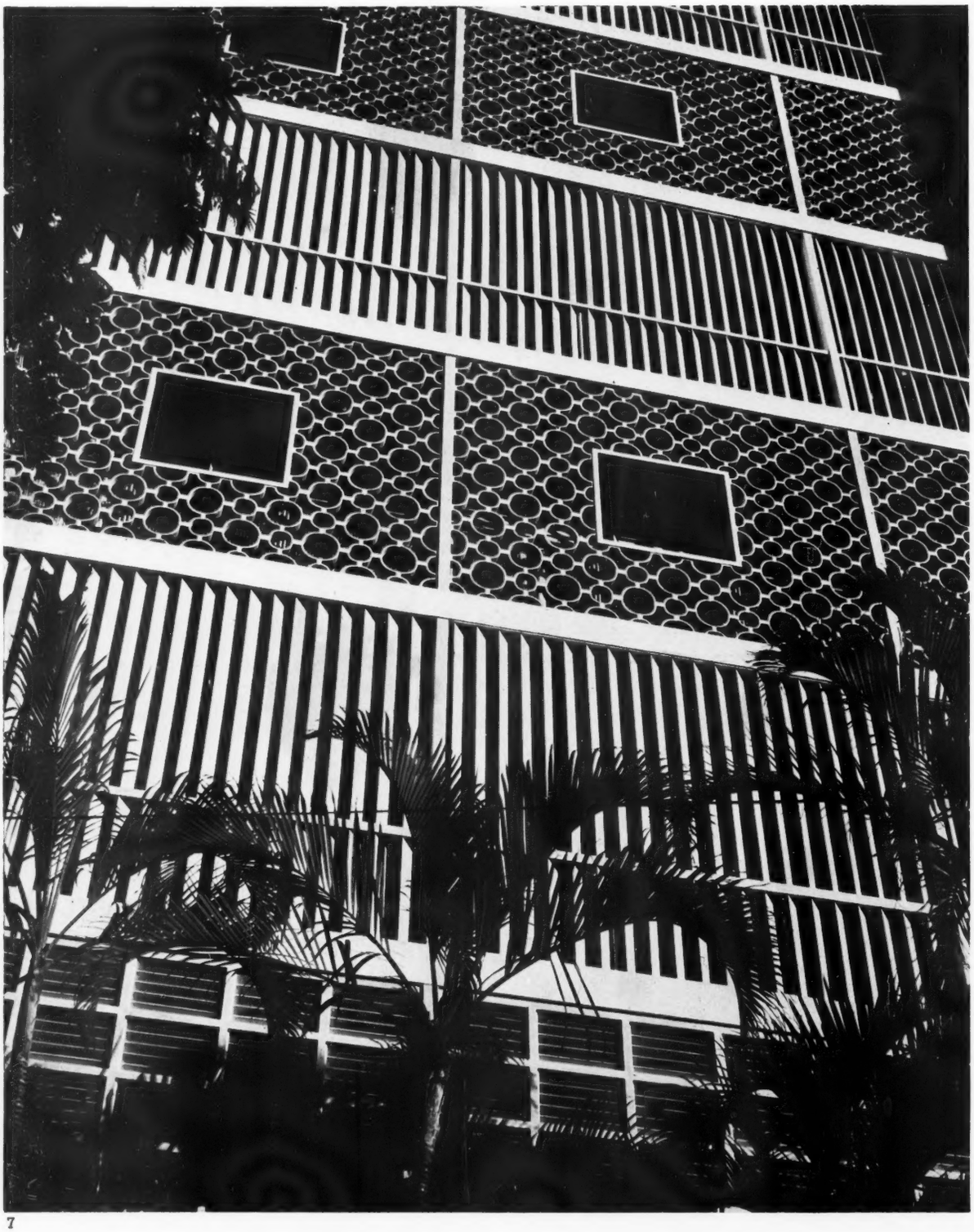


6

5, elevation towards the park of the second block, "Bristol". One of the staircase towers of "Nova Cintra" can also be seen on the extreme right. 6, a close-up of the façade of "Bristol", showing the various methods used to fill in the external frame. The ceramic grille protecting part of the balcony is shown in detail on p. 89.

7, close-up of part of the façade of "Nova Cintra" showing the vertical *brise-soleil* and open ceramic grilles on alternate floors. The horizontal *brise-soleil* in small panels at the foot of the picture light the upper part of the ground-floor shops.



7

# THE LINE OF LIFE

The essential function of a town should be visible from a single glance at the plan. This obviously is because the arrangement of its parts reflects certain lines of force which represent also the combination of circumstances that brought the town into being. Conversely, when a town lacks character and structure, the failure can nearly always be traced to some impediment in the relationship of form to function, whereby the lines of force have become confused, or have disappeared. This explains the amorphous character of so many modern towns, but it also suggests the planner's opportunity. Since his task, in any case, is one of resolving conflicts and allocating the regard to be paid to rival demands, and since the procedure he follows is inevitably one of delineation, the success with which he discovers and gives visual interpretation to the most significant lines of force, will largely determine whether the town achieves an intelligible and *characteristic* form.

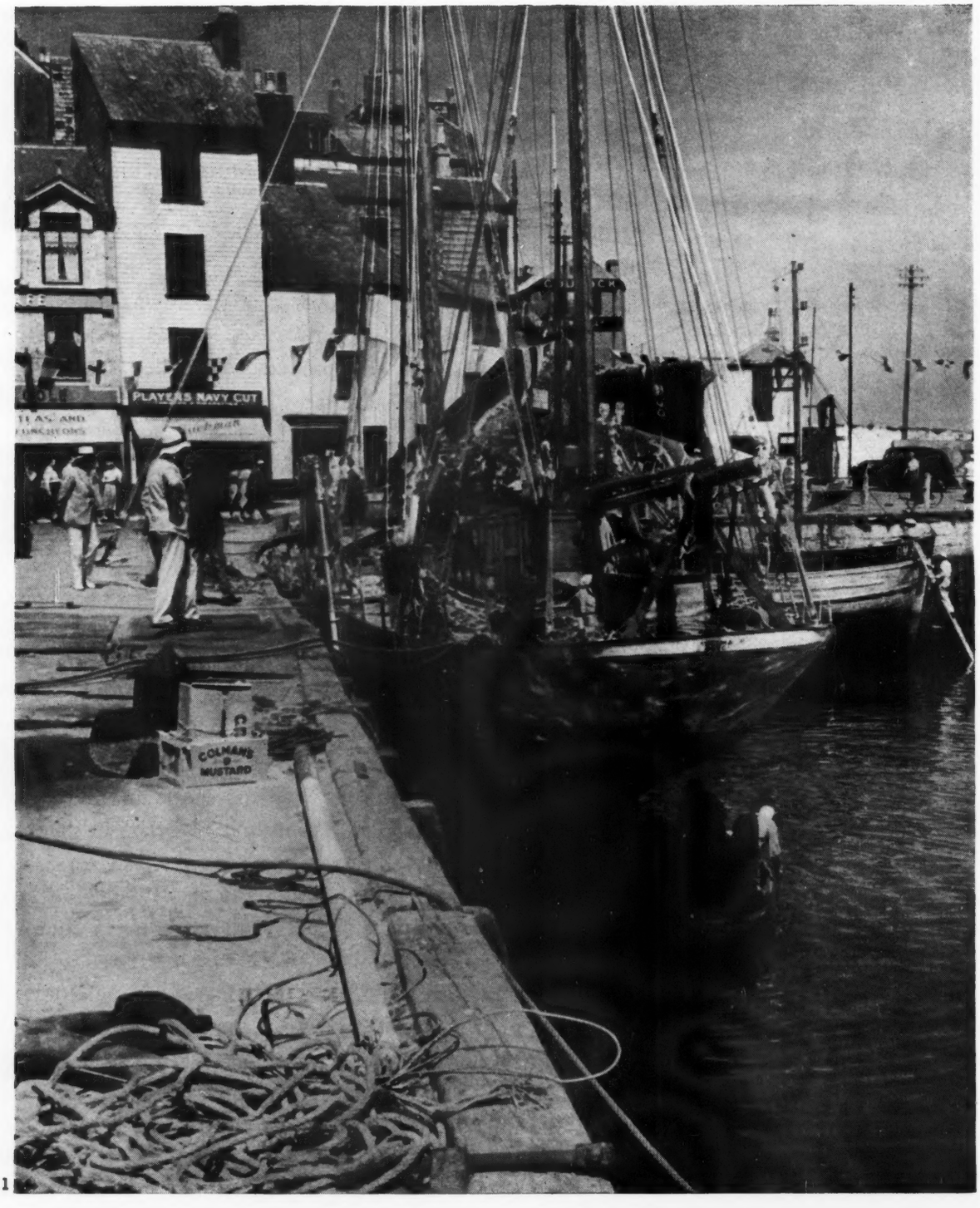
This opportunity is best revealed in a town—such as the typical seaside town—where the lines of force have an obvious and immediate relationship with lines of demarcation in the geographical sense. The very *raison d'être* of the seaside town is the line along which land and water meet, and that perhaps explains why character survives better in the seaside town than elsewhere. On the following pages Gordon Cullen uses four towns on the south coast of England as a demonstration of the sort of action a planner, aware of the significance of this relationship, might take in trying to preserve or create a good urban character.

He begins with Brixham, a place where the meeting of land and sea forms a natural amphitheatre enclosing the harbour, and the shape of the town can hardly do otherwise than coincide with the one dominating line of force—in this case the gathering of a community protectively round the shipping to which it owes its living. In this lies Brixham's character, a character that is already clearly and vigorously expressed. All the planner has to do is to intensify the result visually so that every particle of drama and logic can be wrung from it.

In the next example, Fowey, the line of force has still one dominating character, the crowding activity along the waterfront, but here, with houses and cliffs descending straight into the water and the absence of a continuous quay, a barrier is placed between the inhabitant and what is, in fact, the real line of force, the coast-line. Steps occasionally run down to it from the interior, but there is no continuous access along it. All that is

needed is to link these points together and the real character of Fowey falls into line.

Looe is a more complex case, where several lines of force operate simultaneously, and the planner's task is to disentangle them and allow each its proper topographical expression, building up the town's character by this means. Finally, West Bay, the last example, is a modern settlement that totally lacks character because sporadic building has taken place without any relationship to the natural lines of force that might have suggested an interesting architectural shape. Here nothing short of complete replanning will suffice, and the drawing on page 106 suggests how this could be done and how a town of character would inevitably emerge when the lines of force and the lines of architecture had thus been made to coincide.

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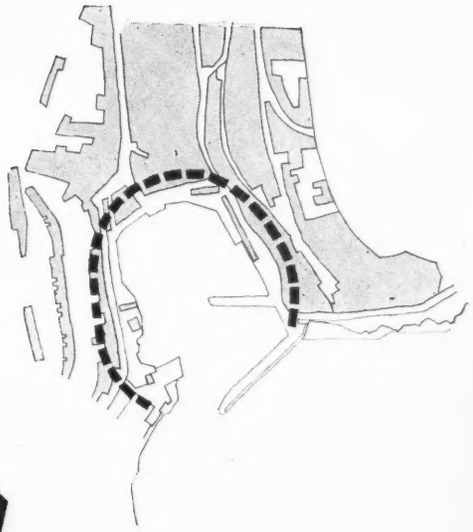


# 1 *Brixham*

*As good an illustration as you could wish for of the liveliness of scene and character that ensues when the natural lines of force, deriving from a town's origin and function, find an immediate echo in its topography. The harbour (facing page) is the effective centre of the town, which is built up into terraces round the almost enclosed inner harbour in the form of a natural amphitheatre. It is a combined social and working centre; visitors promenade the quays and treat the fish market as a free entertainment; coloured sails and flags and the whirling wings of seagulls combine to create a stimulating effect—that of a busy industrial scene permanently* en fête.

*In these circumstances nothing is required of the planner but a watchful eye to make sure the present compact unbroken line of surrounding buildings is not interfered with—his only additional task being to provide car parks out of sight of the harbour, so that the sparkling water-front scene is no longer blocked by the dark shapes of rows of parked cars. The planner can, however, intensify the existing character of the amphitheatre of buildings by seeing they are given the maximum visual coherence. An obvious way of doing this is to whitewash them. White walls trimmed with tarry black are in the approved nautical tradition. At present the buildings surrounding Brixham harbour are mostly a mixture of duns and greys (top right). The unifying effect of whitewash is shown in the other picture (bottom right).*

2

3

*Postscript to Brixham: a close-up of a corner of the inner harbour, where steep paths climb up to the surrounding amphitheatre of buildings. It shows that the suggestion (previous page) that whitewash with black trimmings should be more freely used, has plenty of precedent in Brixham.*

4

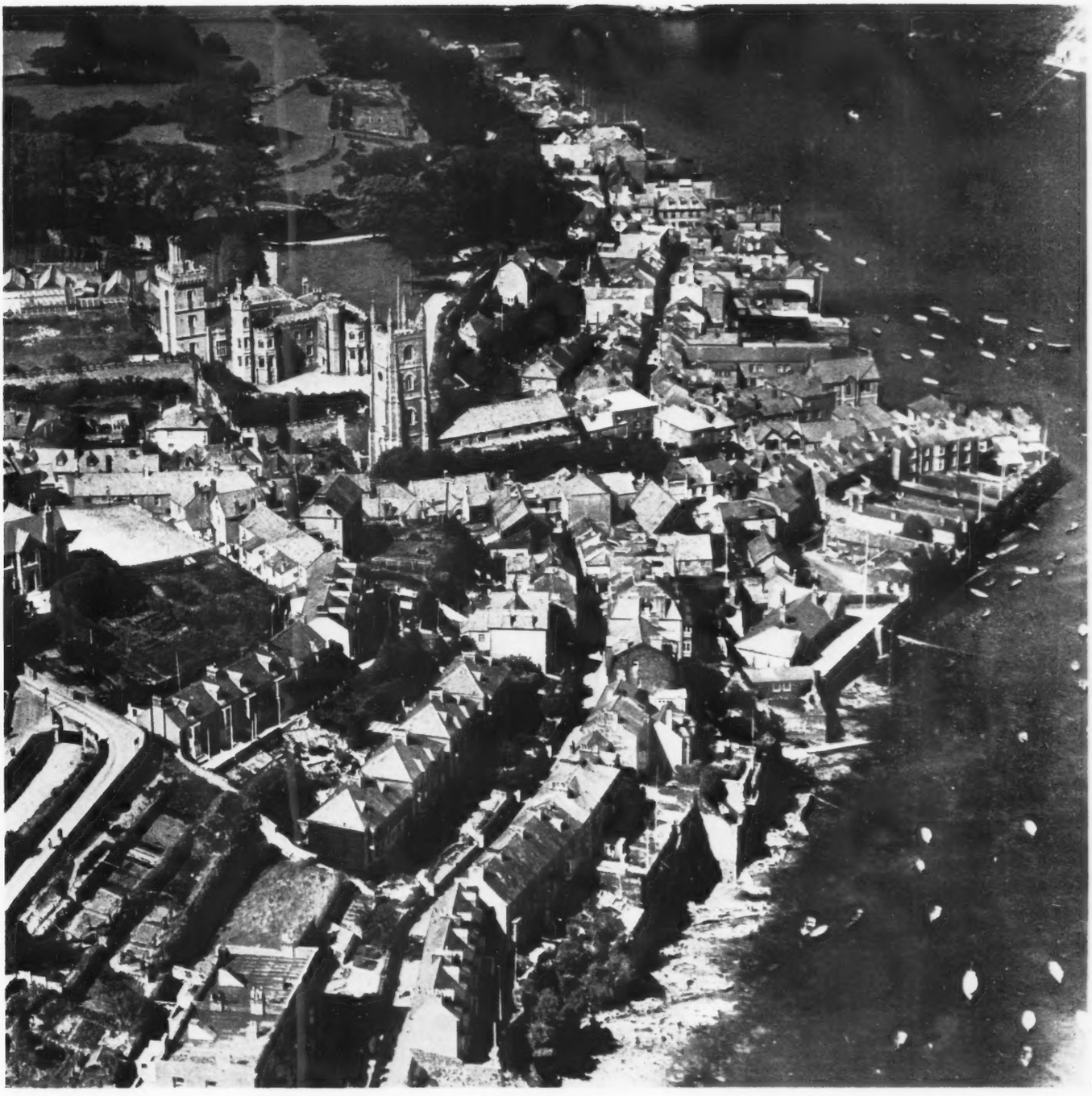
*Brixham*

## 2 *Fowey*

*As with Brixham, Fowey's topographical shape reflects pretty closely the* raison d'être *of the town: a built-up line where land and water meet. But here, instead of a circle of buildings round an enclosed harbour it takes the form of a line of buildings along the shore of an estuary. Brixham has the special virtue, from which it derives much of its vitality, that the line where land and water meet is a social as well as an architectural line—the line where sailors and landsmen freely mingle. Fowey, on the other hand, has the failing that the satisfactorily built-up line of architecture (facing page) acts as a barrier, only allowing human contact with the water at one or two isolated points.*

*The planner's first task then is to arrange some sort of continuous access, so as to revitalize the water-line—see proposals on the following pages. The principle he should follow is that a mere physical line along the water-front (such as the cliff-top roadway, bounded by a wall, in the picture alongside) is not enough; there must instead be intimate living contacts all along the line.*

5



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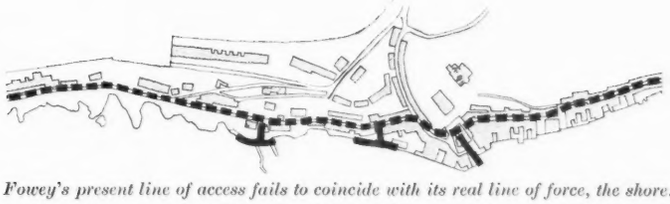
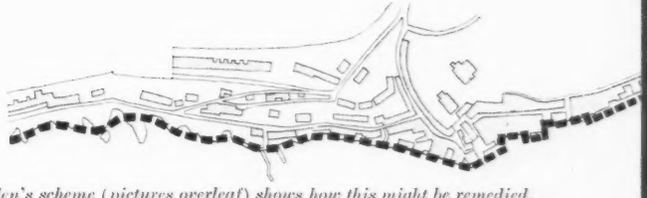




*Fowey's present line of access fails to coincide with its real line of force, the shore. Gordon Cullen's scheme (pictures overleaf) shows how this might be remedied.*

## Fowey

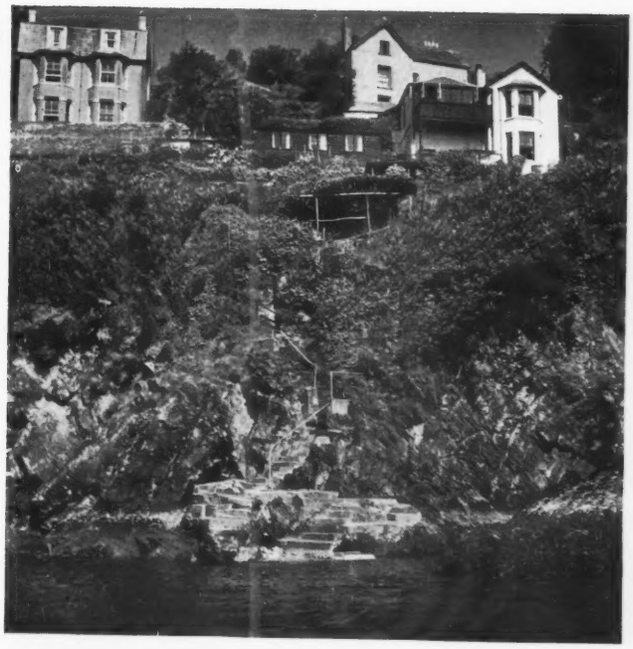
*The water-front architecture of Fowey plunges, logically and dramatically, straight into the estuary; in many cases sea-wall and house-wall are one. But only at certain points is there public access to the water, with the result that Fowey loses the opportunity of drawing maximum vitality and character from the fact of the fullest social life being lived along the line where land and water meet. The three pictures on this page show the isolated nature of the points of access. In the lower one a group of trippers have found one place where only light railings separate them from the excitement represented by boats.*

*The planner's object must be to provide them and the townspeople with this excitement all along the front without destroying its architectural continuity. One way of achieving this would be to build a pedestrian walk, at whatever changing levels the topography suggests, linking up the existing access points into a continuous line. The pictures opposite show how this walk might appear at various points where access is now unobtainable. Such a walk would be completely in keeping with Fowey's present intricately built-up pedestrian character.*

7

8

9



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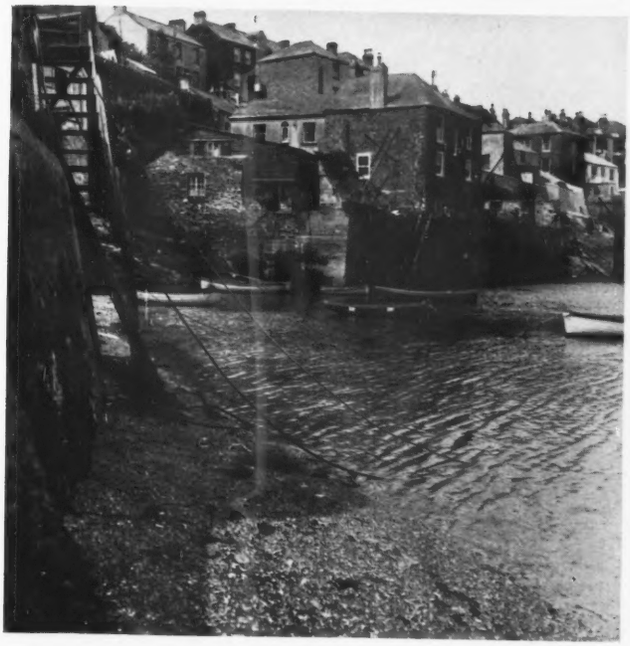

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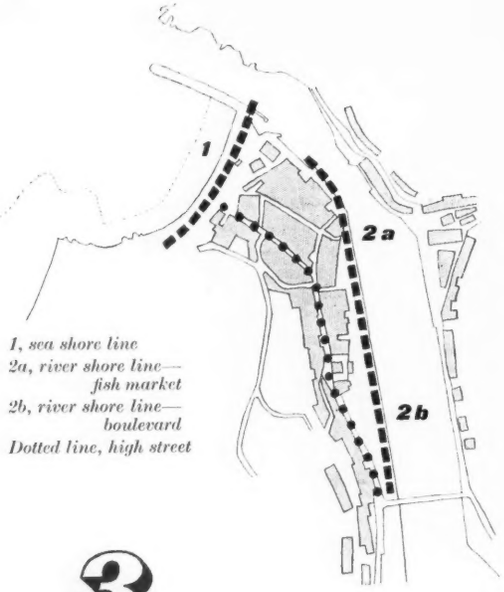



*1, sea shore line*
*2a, river shore line—fish market*
*2b, river shore line—boulevard*
*Dotted line, high street*

# 3

## *Looe*

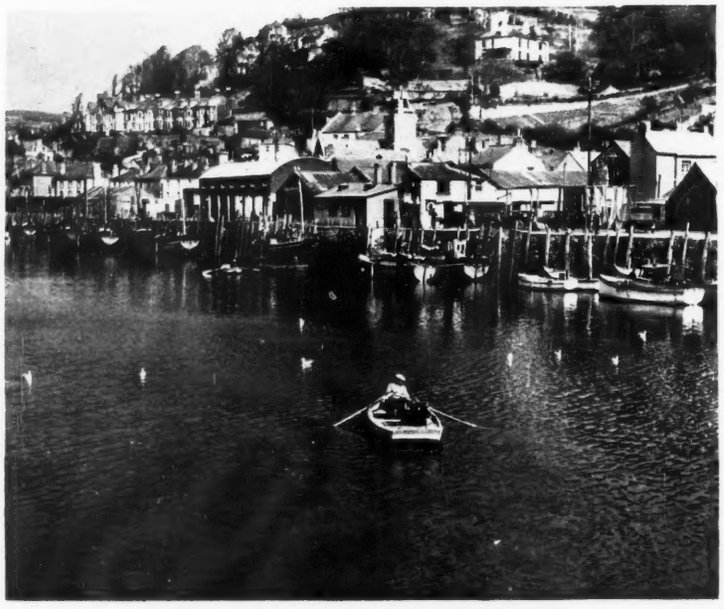
*A more complex case than Brixham or Fowey, because the line is a branching one, eventually becoming two lines, one along the river, one at right angles facing the open sea (top picture). Each stretch of water-front has its own individuality, expressing the fact that the most intense social life is lived along two fronts, each different in character but to which Looe jointly owes its existence.*

*The sea-front line is a plage (second picture) sheltered on one side by a pier, on the other by the rocky headland of the bay. The river-front line is a fish market (bottom picture) similar in style to that at Brixham. The unsatisfactory part of Looe is that stretch of the line before it divides—before the High Street branches off from the river-front and leads away to the plage. This is where the linear water-front character should be most strongly marked, where the inhabitants should have most opportunity of living a water-front life—both spiritually and physically. But in fact the line here has disintegrated, leaving a directionless no-man's land, used by the council for parking cars.*

*What is called for here is a boulevard where shops—this is an extension of the main shopping street—forming a continuous base to the cliff that rises above, could face a wide promenade, where the*

16

17



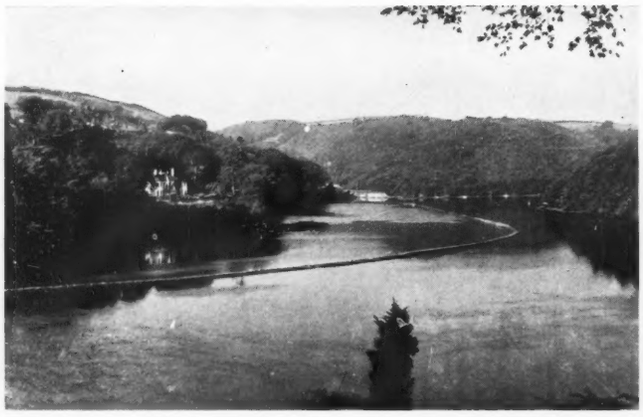
18

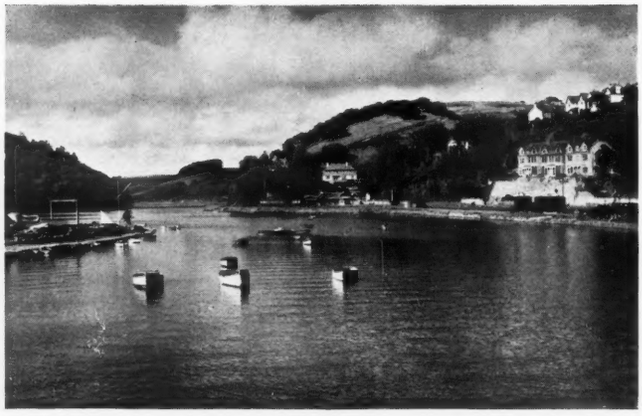
19

*inhabitants could stroll beneath trees, conscious of partaking in the life of the river.*

*Left, parked cars obstruct the water-front at Looe, physically and visually, making a characterless waste of what should be the life-line of the town: the river-side promenade where land activities are superimposed on the waterside scene. Below Gordon Cullen suggests how this key stretch of Looe could be brought back into character by providing a car park elsewhere and allowing the boulevard its rightful use as a meeting place of fisherfolk and landlubbers. Under the trees fish stalls and restaurants overlook the water near the fish market.*

20



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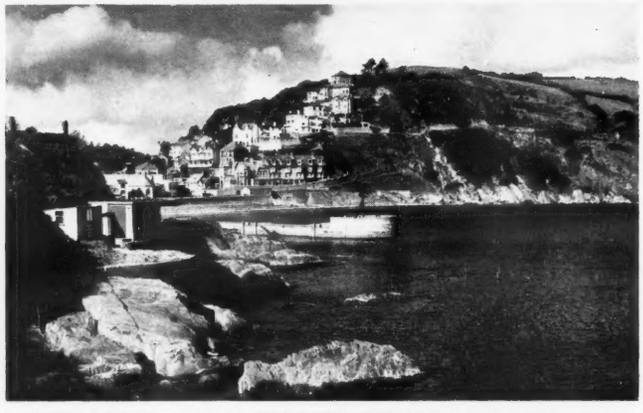

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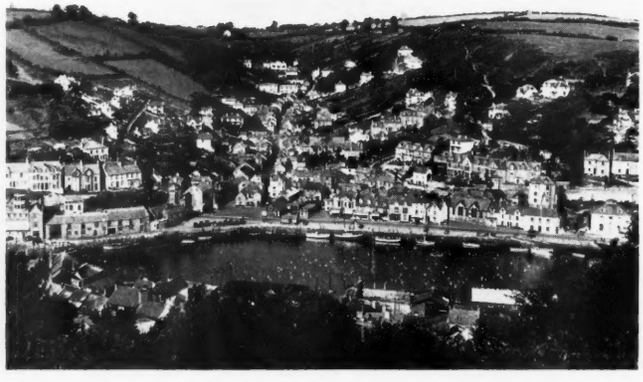
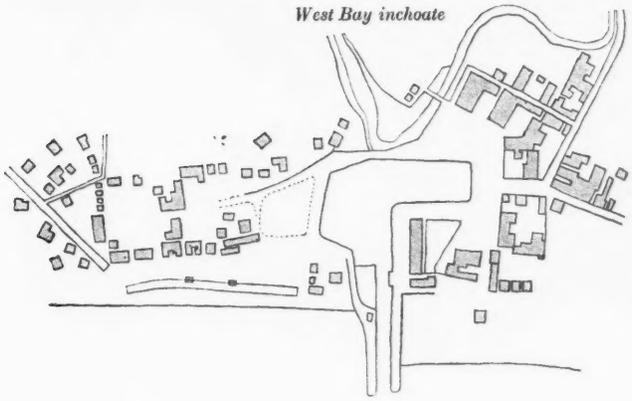
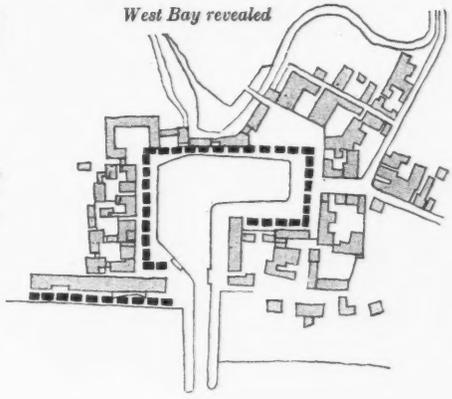


27, 28

*A moral tale from Looe. Top pictures: the idyllic river scenery just above the town; thick woods climb down to the water's edge. Second row: the town itself—at the same time a river and a seaside town, but in either case as compactly built up as a town of this character should be. The river-front is lined with houses in continuous terraces; the sea-front the same, and when the part of the town that climbs the hill behind stops, it stops altogether. The line is clearly maintained. Third row: the linear principle abandoned; nearby headlands ruined by isolated buildings. Bottom pictures: their bad example is affecting Looe itself; on the hills in the background the terrace formation has been allowed to disintegrate destroying the emphasis on the line from which Looe, obeying the magnetic attraction of the water-front, derives its whole character.*

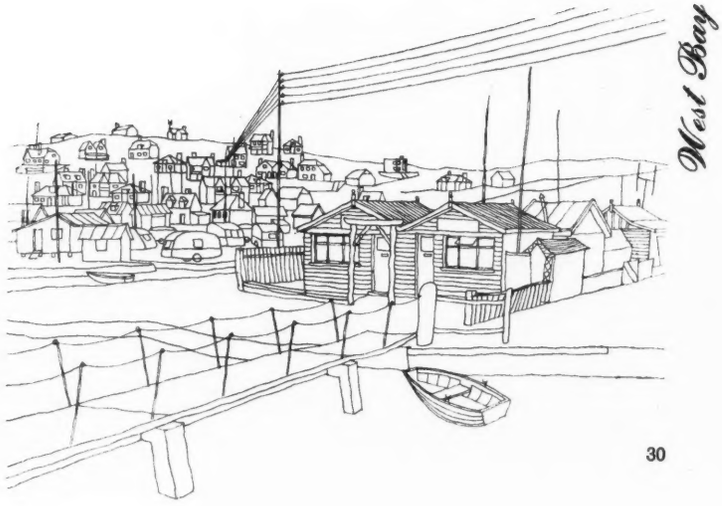


## 4 *West Bay*

*If Looe shows in places alarming signs (see facing page) of losing its firm character by permitting sporadic building—that is to say, of no longer being true to the line that gives it life—West Bay is a sad case where this truth has never been discovered. A modern settlement, it has never consisted of anything but sporadic building; hence its total lack of character. Instead of adherence to the seaside tradition of intense concentration along the line where land and water meet, which has been studied on the preceding pages, here is its complete opposite: buildings scattering, as it were, away from the line instead of drawing towards it. The diagrams above point the contrast and the photographic panorama above and on the right shows the formlessness of the result. But West Bay is not beyond remedy; it is merely a case where the planner must take drastic action before it is too late. The physical possibilities are there—the land-locked harbour round which the life of the town should naturally congregate, setting the line round which the architecture should congregate too. The drawing on the next page shows how an enterprising planner could make something of these possibilities.*

*West Bay as it is (right) and as it might be (below). The nucleus of the town—in fact its* raison d'être*—is the land-locked harbour, a sort of water square, and round this the town should be grouped for reasons of both function and character. The development plan suggested in the drawing by D. Dewar Mills below is not a Utopian one, because in it the existing buildings are not disturbed. It shows how a desultory assortment of buildings could be brought to life by insisting that future building must follow a process of filling the gaps between them and building up round the water square. By such means modern planning could achieve the same lively coincidence of form and function that is shown elsewhere on these pages associated with traditional growth.*

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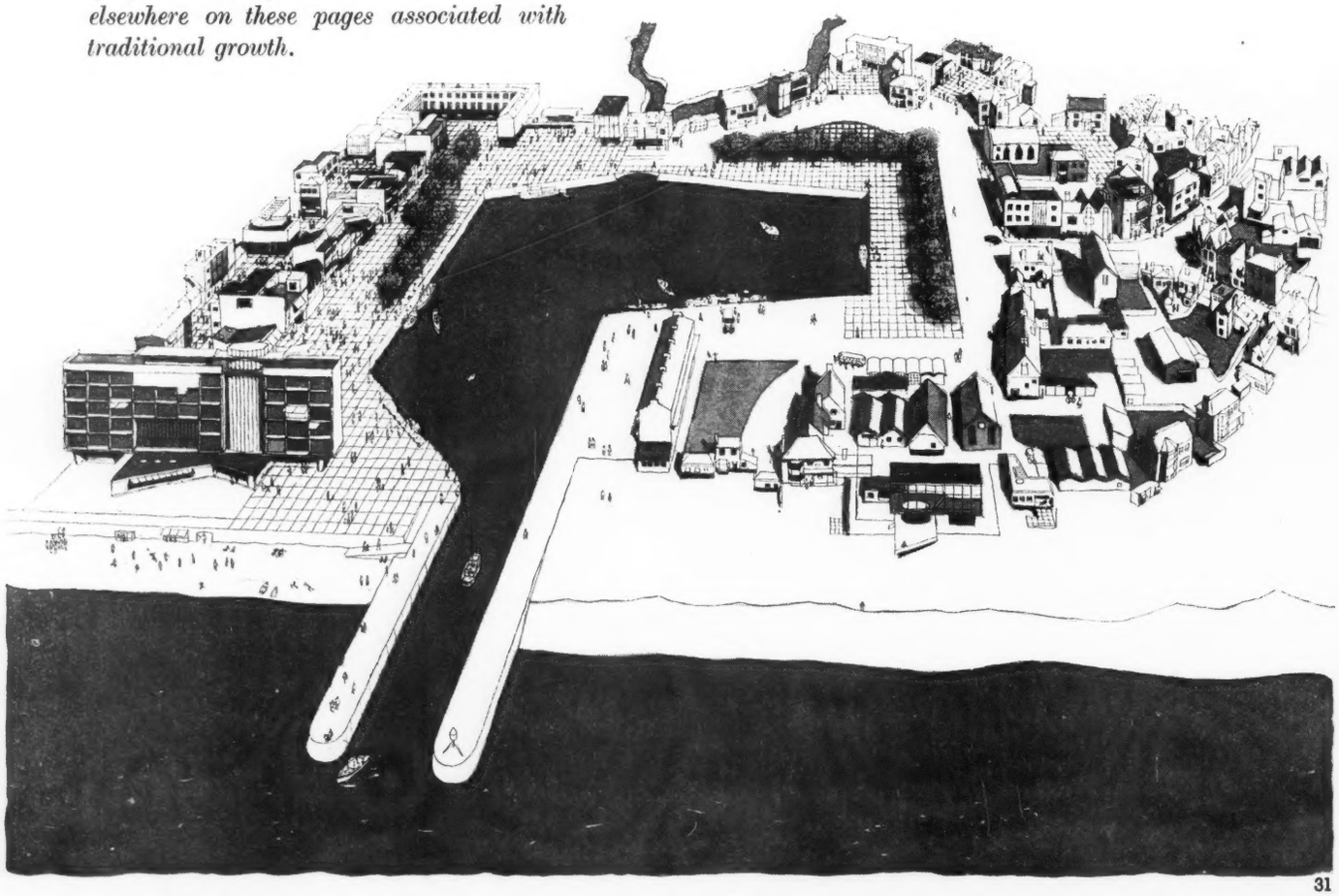
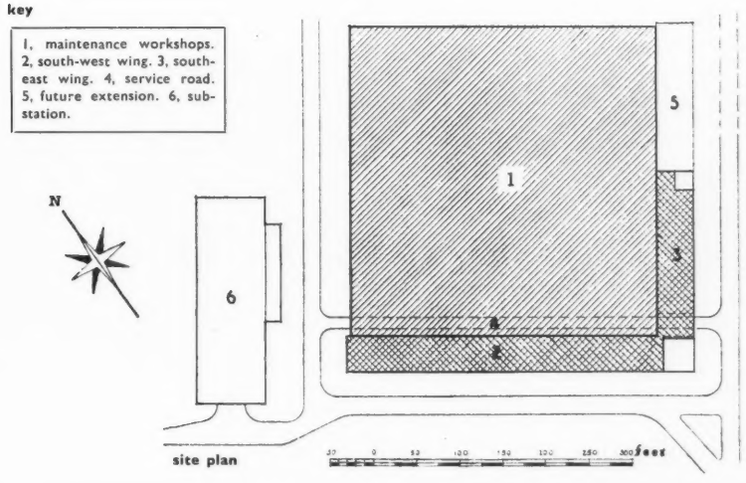


31

1 Concourse and south-east wing of the administrative block, showing entrance to service road through to workshops.

# STEEL ROLLING MILL AT SCUNTHORPE

***FREDERICK GIBBERD : ARCHITECT***




The buildings illustrated form the administrative block to a new maintenance shop erected by the Appleby Frodingham Steel Company as part of an extensive rebuilding programme. Three other instalments of this programme were illustrated in the November issue ; an electrical sub-station, an office and welfare building and the rolling mill itself.

Because of the problems arising from the dust laden atmosphere and noise, it was decided that the administrative block should be sealed from the outside air and artificially ventilated and heated. All external surfaces are hard and have permanent colours which can be easily cleaned down. There are two wings to the building. The south-west wing accommodates stores, welfare and other accommodation concerned with the workshops, and is directly connected to them. The south-east wing contains a drawing office and other technical accommodation. Only half this wing has been built at present, provision being made for a later extension. A service road is run right through the workshop building, adjacent to the south-west wing, giving direct access to the stores and workshop, and passing through the administrative building near to the junction of the two wings.

The workmen's entrance forms a concourse at the junction of the two wings. The men go down to the basement locker and ablutions rooms and then up into the workshop ; clocking-on racks being provided in the individual bays of the workshops. The circulation is reversed at the end of the shift and pay windows have been provided in the concourse. Foremen's and workwomen's lockers and lavatories all open direct off the workshops. Separate canteens for the workmen, apprentices, foremen and office staff, together with a large kitchen and stores are planned on the first floor of the south-west wing. The workshop stores are on the ground and basement floors with access to the workshops either direct or by four-ton goods lift. The administrative and planning offices in the south-west wing have a separate entrance. A lecture room and library is provided on the

## STEEL ROLLING

## MILLS AT SCUNTHORPE

Concourse entrance is faced with pale blue-grey faience tiling. Entrance doors are in grey and white; the column is yellow.

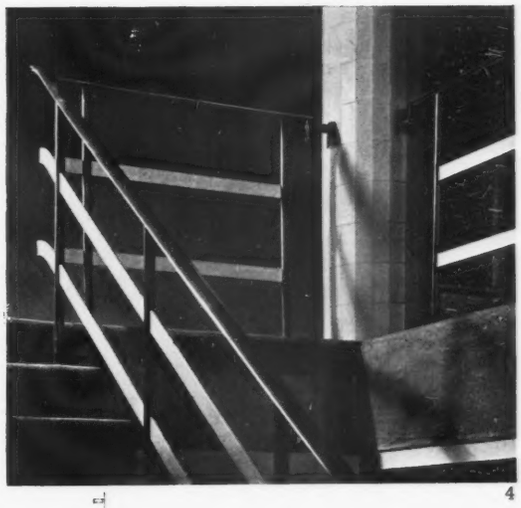
2

first floor in connection with apprentices training. The drawing office in the south-east wing is lit by north light glazing, and windows, of glass bricks, on one wall. Printing, photostat and multilith rooms are planned in the basement with a goods/passenger lift to the drawing office.

The external walls of the buildings are dark red bricks with a hard surface and they are laid with two stretchers to one header. Since the offices are sealed from the open air their windows are designed as glass brick panels, but a strip of clear glass is placed under them to give a view. Windows have reconstructed stone heads and cills and stretch between the columns, which appear as mullions.

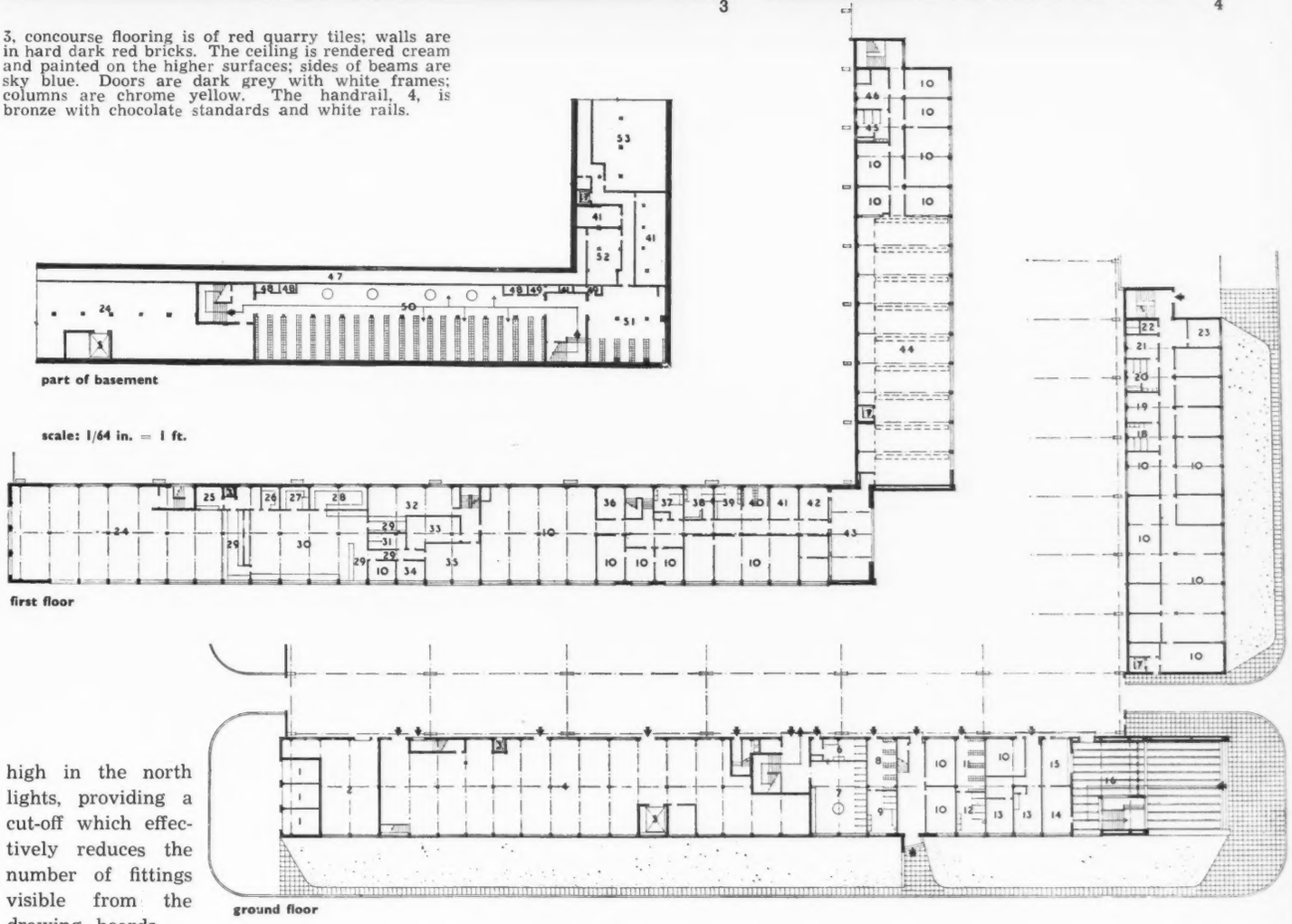
The building is steel framed with reinforced concrete hollow tile floors and roof. External walls are brickwork with cavity and foam slag inner skin. The glass brick glazing is built in panels between the stanchions and they are bedded on steel channels supported on tubular steel mullions between metal windows. The north lighting to the drawing office is of patent aluminium glazing and other windows are of steel. Window surrounds and copings are constructed of precast stonework cramped to the concrete backing and faience tiles are used at the concourse and office entrances. The wall tiles are a blue grey colour, contrasted by a chrome yellow tile face to the column. The roof is insulated and finished with asphalt. The air for the ventilating system is filtered and heated in two ventilation chambers on the roof; the ventilating inlet and extract trunking being contained in the false ceilings over the corridors. Surplus steam from the works is used for heating with calorifiers serving the radiators. The full kitchen equipment is generally electrically heated, although steam heating is used for hot cupboards, steamers and boiling pans. Fluorescent lighting in the drawing office has been fixed

3



4

3, concourse flooring is of red quarry tiles; walls are in hard dark red bricks. The ceiling is rendered cream and painted on the higher surfaces; sides of beams are sky blue. Doors are dark grey with white frames; columns are chrome yellow. The handrail, 4, is bronze with chocolate standards and white rails.



part of basement

scale: 1/64 in. = 1 ft.

first floor

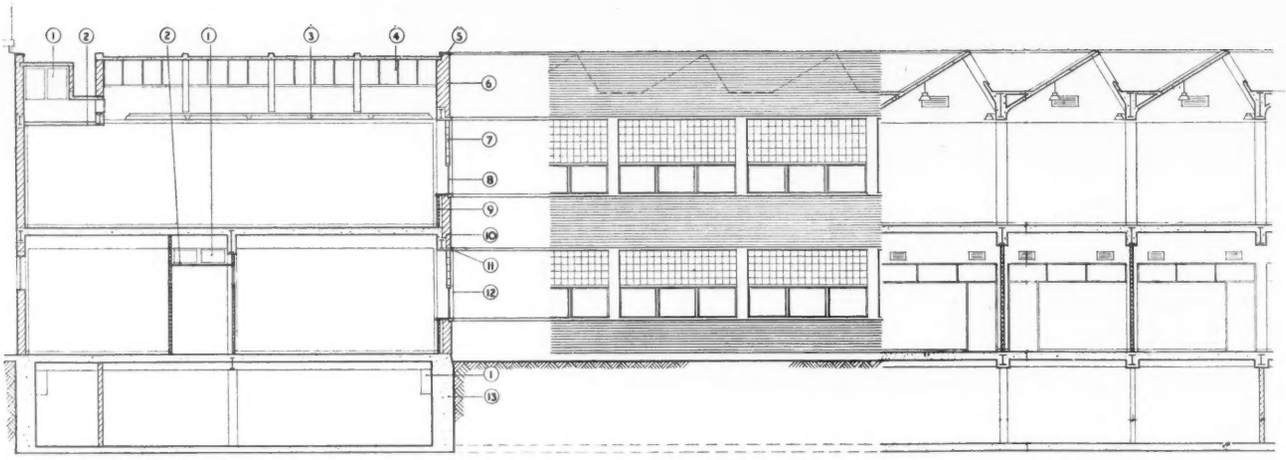
ground floor

high in the north lights, providing a cut-off which effectively reduces the number of fittings visible from the drawing boards.

The designers working in collaboration with the architect were: I. M. Kemp, chief designing engineer; K. Paterson, civil and mechanical engineer; J. L. Gaskell, chief electrical engineer; G. C. Oram, manager of the central engineering workshops; H. Saunders, manager of the constructional department; Cecil Bentham, consulting engineer for the engineering workshops; R. C. A. Aylmore acted as site engineer; the quantity surveyor was P. T. Walters, and the assistant architect was J. W. Grimes.

key

1, transformer houses. 2, switch room. 3, kitchen lift. 4, engineering workshops stores. 5, stores lift. 6, apprentices' lavatory. 7, workmen's lavatory. 8, foremen's lockers. 9, foremen's lavatory. 10, offices. 11, women's lockers. 12, women's lavatory. 13, first aid. 14, production committee room. 15, time and pay office. 16, concourse with access to workmen's lavatories and lockers. 17, passenger lift. 18, female lavatory. 19, female lockers. 20, male lavatory. 21, male lockers. 22, cleaner. 23, enquiries. 24, workmen's canteen. 25, shop. 26, dry store. 27, larder. 28, vegetable preparation. 29, service. 30, kitchen. 31, lavatory. 32, apprentices' canteen. 33, foremen's canteen. 34, rest room. 35, staff canteen. 36, waiting room. 37, managers' lavatory. 38, female staff lavatory. 39, male staff lavatory. 40, locker room. 41, store. 42, library. 43, lecture room. 44, drawing office. 45, male staff lavatory. 46, cloakroom. 47, service pipe duct. 48, showers. 49, lavatories. 50, men's lockers and ablutions. 51, apprentices' lockers and ablutions. 52, calorifier chamber. 53, printing rooms.




section through administrative block

scale: 1/16 in. = 1 ft.

key

1, ventilation ducts. 2, suspended ceiling. 3, fluorescent light fittings. 4, patent glazing. 5, stone coping. 6, 14 in. brickwork. 7, glass bricks. 8, metal windows. 9, 3 in. foam slag. 10, 9 in. brickwork. 11, stone nibs. 12, stone piers. 13, concrete retaining wall.

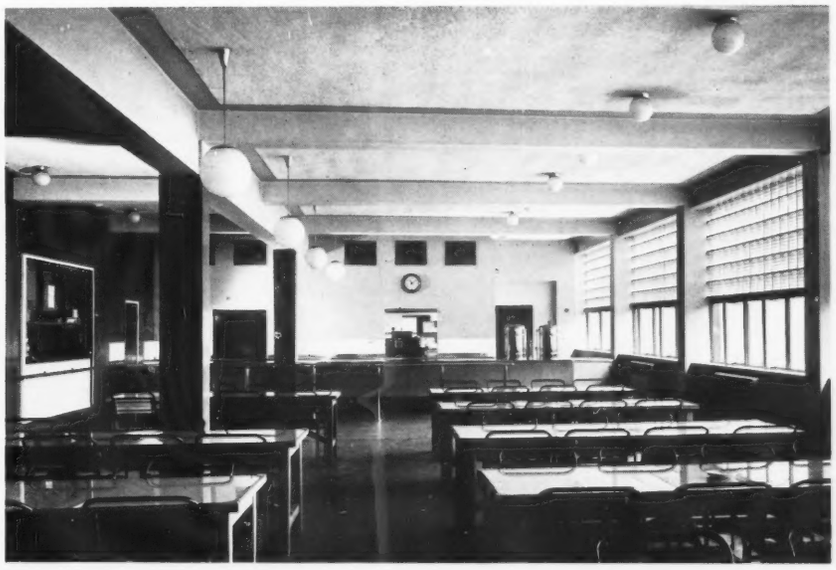
5, general view of the south-east wing, and 6, detail of entrance to offices, showing glass brick and metal windows. The door is painted yellow and the surround is of travertine. Faience tiling is pale blue-grey.

5

6

7

7, general view of the kitchen. 8, the workmen's canteen looking towards the servery. Beams and wall stanchions are lemon yellow, centre stanchions are blue. Rear wall is chocolate, end wall is pale grey. Ceiling is finished white with grey surround and counter front is in blue ribbed plastic sheets. 9, drawing office showing glass brick windows, north lights and fluorescent light fittings.



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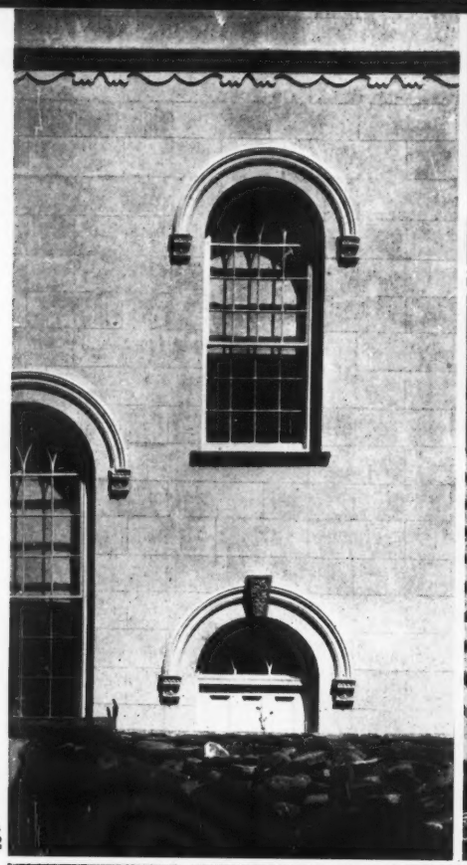

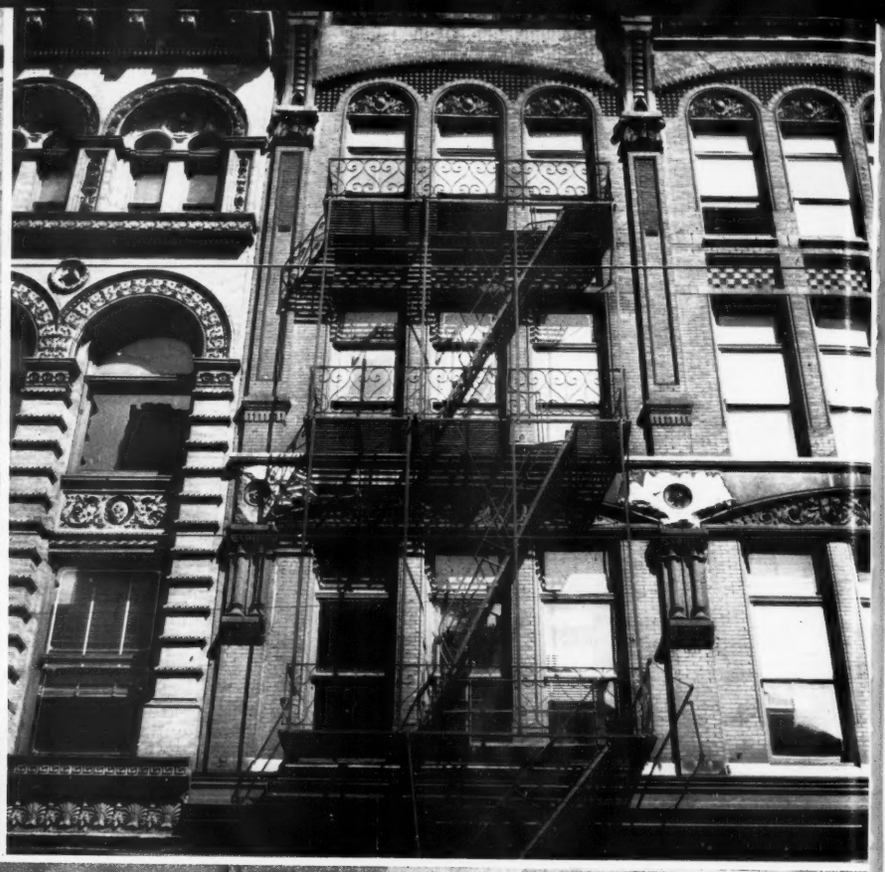

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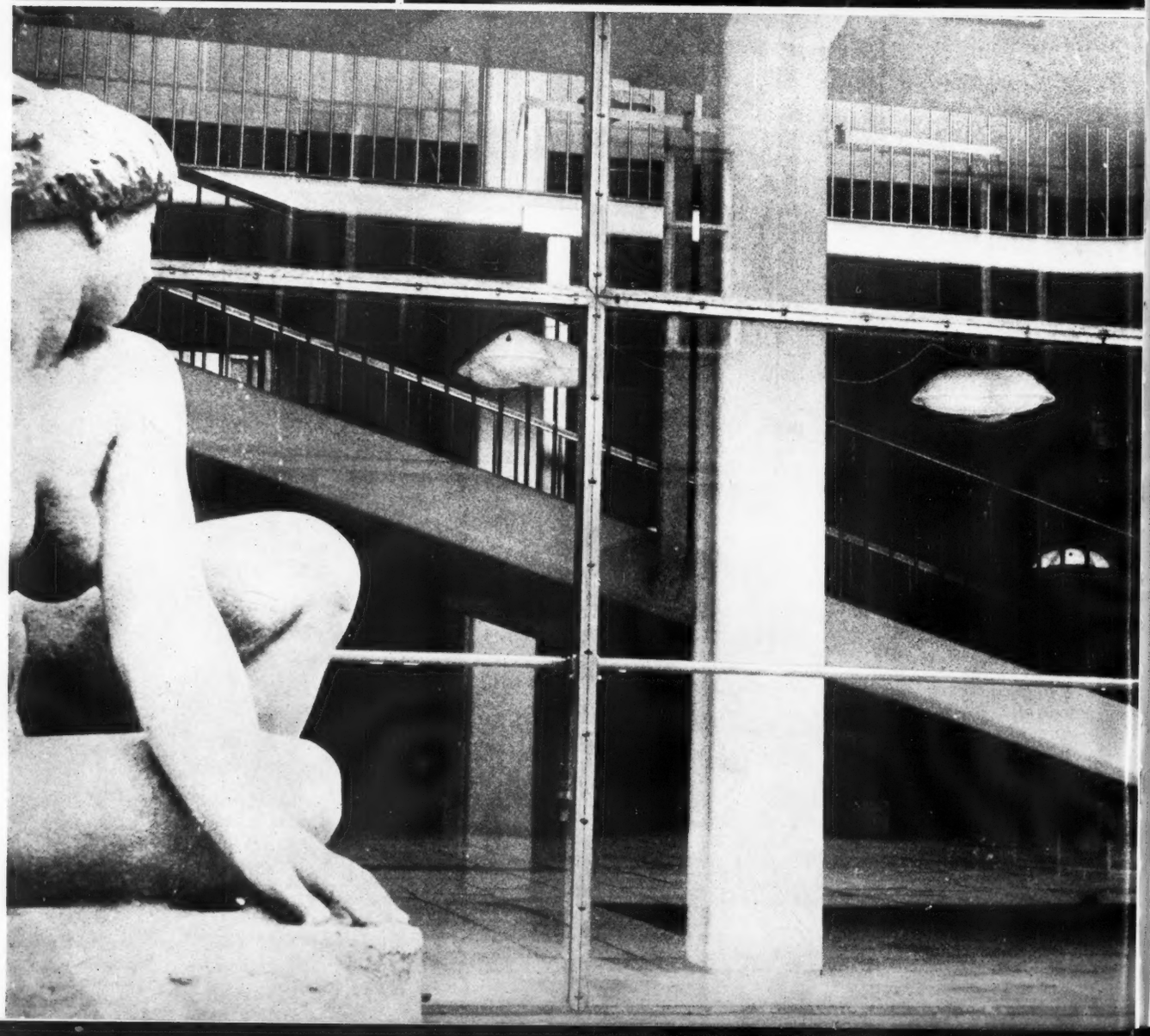


3

1, *window in wall*
2, *conflict*
3, *window as wall*

1, *chapel at Llannon, Cardiganshire.* 2, *street in Philadelphia.* 3, *Asplund's Gothenburg town hall.*

**D. Dex Harrison**

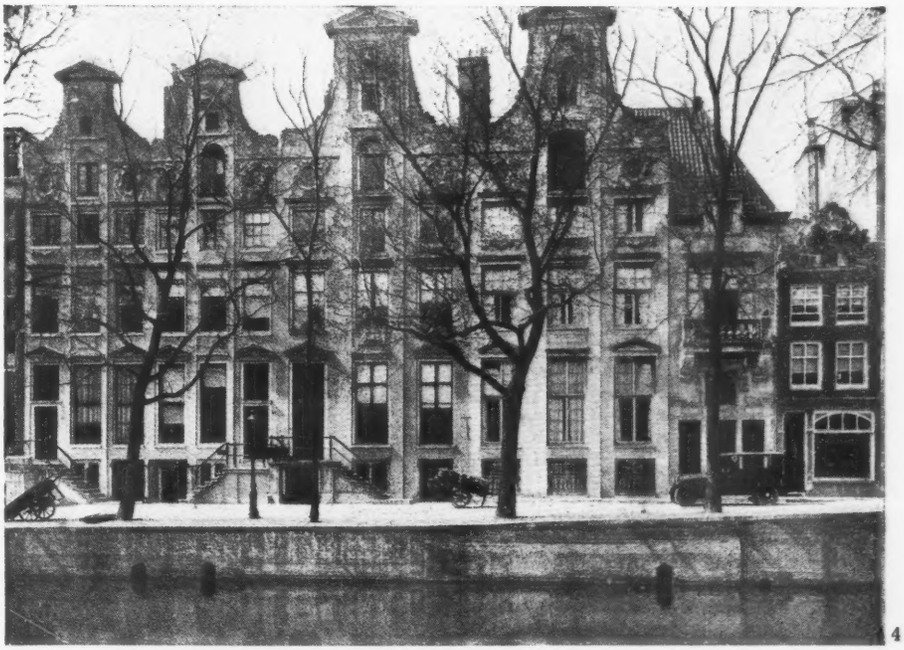
# WINDOW INTO WALL

**The evolution of the window has often been studied from the point of view of architectural style and of the types of structure that determine the size of window openings. In this article it is studied simply as a mechanism for letting in light and air and displaying the view. As such it has become increasingly subject to exact control as the importance of the quality of light has been understood and means of measuring it devised. Modern methods of heating and ventilation have also permitted the use of larger areas of glass, so that the window often takes over the wall. The author discusses the architectural effect of this, as well as various devices for the control of light, ranging from the louvred shutter and venetian blind to the modern brise-soleil.**

The old houses in the Herrengracht, Amsterdam (4), are typical of Dutch domestic architecture in the heyday of the Republic, the period of Rembrandt and Erasmus. Amsterdam was being built on a swamp by the Zuider Zee, land was precious, canals costly and houses, in consequence, were erected in multiple storeys with narrow frontages, very deep in plan, front to back. Add to this a mist-sodden climate. Thus the problem; now consider the solution. These seventeenth century Dutch houses might have been designed by the Building Research Station, so mathematically perfect are the diminishing floor heights in relation to the angle of obstruction. The scientific principle is here displayed in a manner uncompromised by limitations of æsthetic fashion, yet the period was the High Renaissance. A truly remarkable demonstration of the intellect, equal to the development of the brise-soleil in contemporary Brazil.

Here, indeed, is the stuff and sinew of style. The achievement lay not in the adaptation of classical motives, but in the rational outlook that could come to such ends from such premises.

Strangely enough, one of the decisive contributions to the window was made by the Victorians, a product of the mind that, having discovered how to cast and polish large sheets of glass, was determined, be architectural philosophies what they may, that glass



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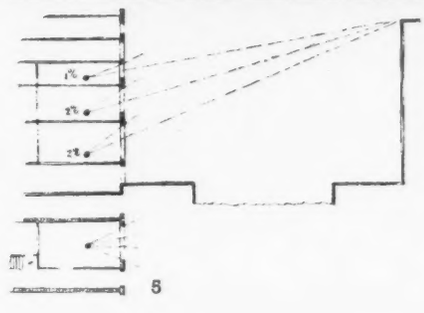

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*Seventeenth-century houses on the Herrengracht, Amsterdam, with greater floor heights on the lower storeys where the light is least effective. The increasing height is exactly calculated to balance the amount of light lost by the cut-off from buildings across the canals, even to the extent of distinguishing between a 2 per cent. Daylight Factor in living rooms and a 1 per cent. Daylight Factor in bedrooms—see the section and plan.*

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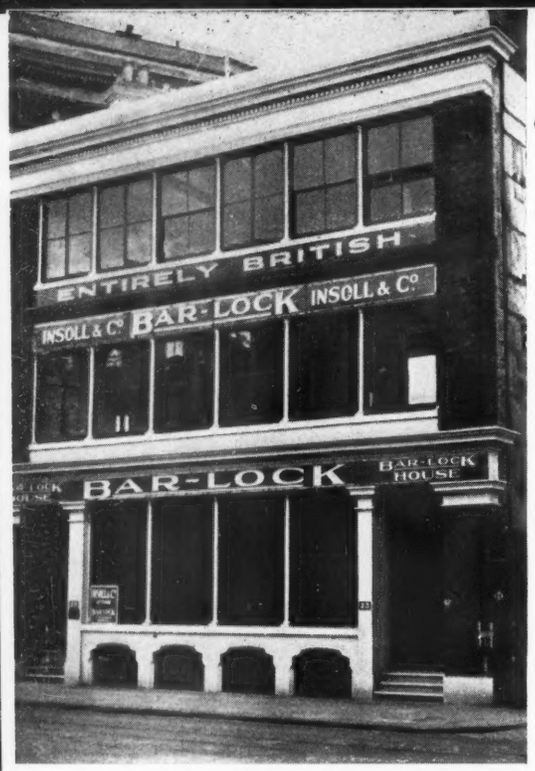


*Plate glass as the unifying factor in the Victorian styles. The window, negative though it is, runs consistently through all these buildings and, representing the rational outlook, comes eventually to dominate the scene.*

should be used to see through. One of the amazing sights in almost any big industrial town is the naked sheets of glass of great size, staring unwinkingly, incongruously, among surrounding architectural improvisations that range variously from Cathay to Cadiz. On those occasions when the æsthetic and the rational moved together, as in Messrs. Ashworth Brown's warehouse in Wellington Street, Leeds (8), and the Miner Rubber Company's building in Southwark (7), or where taste succeeded in marrying the architecture with the window as in the Bar-Lock House (6), and the Hop Exchange (9), both in Southwark, fine building resulted, and the 'style' was mature and undating.

The decline from the Victorian achievement was signal and can be distinguished in the lamentable fall of the window from its proud position, detached and aloof from the stylized encompassing stones, to becoming

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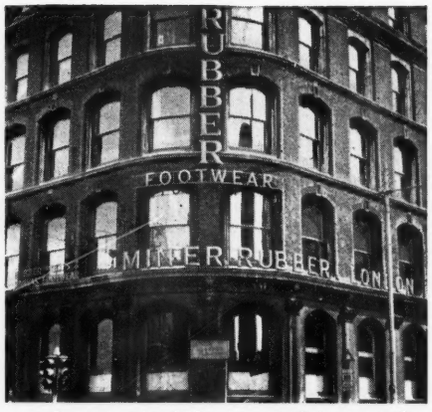


merely a part of the meretricious styles in current vogue. The most shocking instance is the unhappy attempts to Georgianize all types of architecture by dividing the panes into smaller units (10 & 12). This decadence reaches rock bottom in some contemporary 'Georgian Styled' dwellings which have all the

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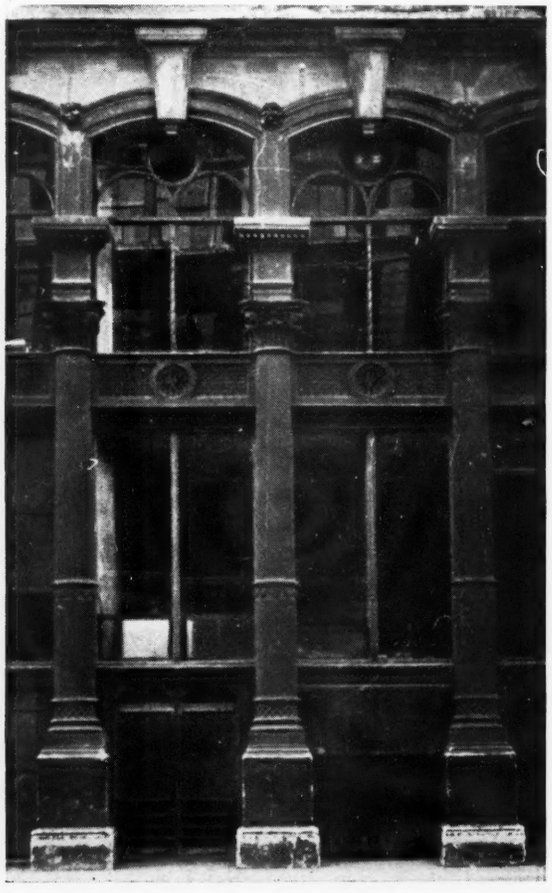
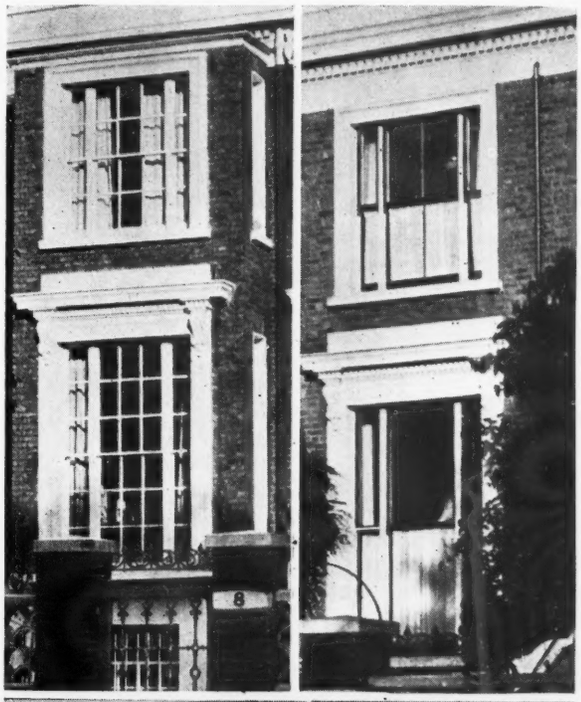


trappings of their originals, except that the scale has shrunk and the detailing coarsened. They are what the Japanese would call trash. The nadir of all architectural styles was reached, surely, in that short-lived travesty of the modern movement which produced the horizontal glazing bar, which became sufficiently fashionable in the thirties to attain the permanence of a British Standard. Few architects, of course, use this type of window now, but there are shining examples from the period, dating badly, to be seen in most European cities. The horizontal glazing bar is seen now to be a fad, a cliché of the period when horizontal lines were *de rigueur*.

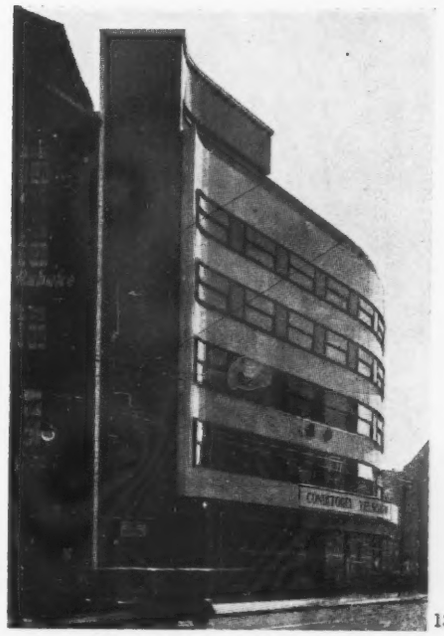
10 11



12

The modern movement, indeed, at this period was groping towards appropriate expression. Thus, the idea that more and more light should flood into buildings prompted architects, in their zeal, to make a window the whole breadth of the wall. The scientist, following on a couple of decades later, has been able to show that such a treatment may be illogical except for shallow rooms, since *taller* windows give more effective light per unit area than longer ones which are not so tall. Le Corbusier himself was guilty of false witness in the service of horizontalism when he put out the diagrams illustrated (14, *a*, *b*, *c*, *d*) to show the advantage in lighting value of horizontal windows over vertical 'of the same area.' In point of fact, the windows he illustrates are not of the same area, but if we make them of equal area and plot their 'Daylight Factor' curves for 5 per cent. and 2 per cent., we get the result *e*, *f*, which indicates these windows to be of approximately equal lighting value, the diagrams *c* and *d* giving a quite false impression. Today, the contemporary architect does not need to be unswervingly horizontal to prove his contemporaneity and newer modern work has reabsorbed the vertical proportion.

On the subject of glazing bars, recent



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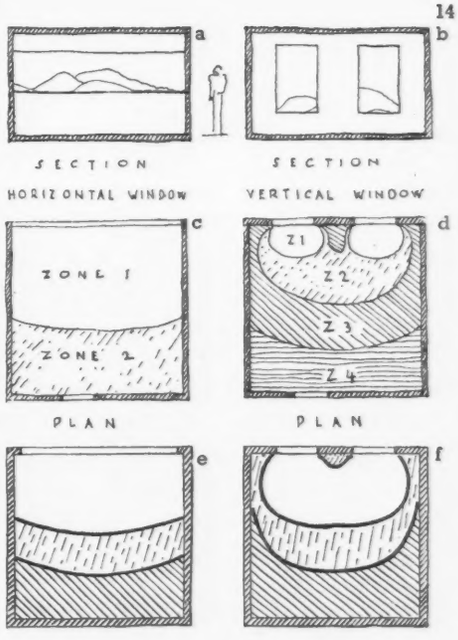
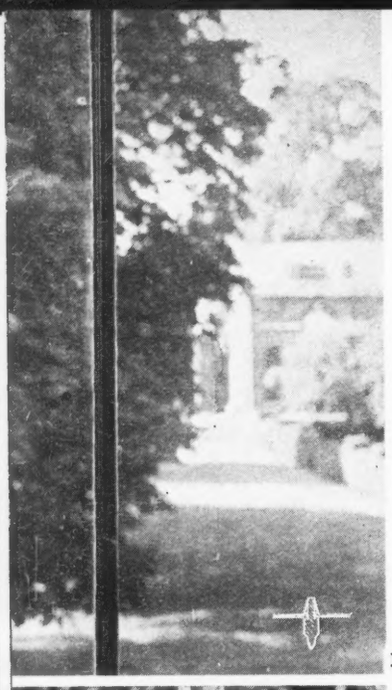



*10 and 11, early Victorian houses in Addison Crescent, London, one of which has been bowdlerised by the later addition of small panes to bring it into line with the sentimental idiom of a later time. 12, a similar example with, built alongside it, one that has sunk to the lowest depth—the small Georgian-proportioned window beloved of the more conservative architects and the town-planning committees of today. Luckhardt and Anker's way with horizontal lines, in their block of offices in Berlin, 13, is at least more logical; the artist knows what he wants to emphasize and why. It is the imitator who produces a travesty like 12. Nevertheless the long horizontal window with low head was a fashion based on an aesthetic urge, and is not supported by recent factual daylighting data, which indicate the greater efficiency, except in the case of shallow rooms, of tall windows. Le Corbusier, who issued diagram 14, a, b, c and d, is guilty of false pleading. If we plot the Daylight Factors for the two cases a, b, we get the answer given in e, f. Notice that this is despite the very high cill level of the horizontal window. If the window was lower, so that the view could be enjoyed from a seated position, the taller windows would have the advantage.*



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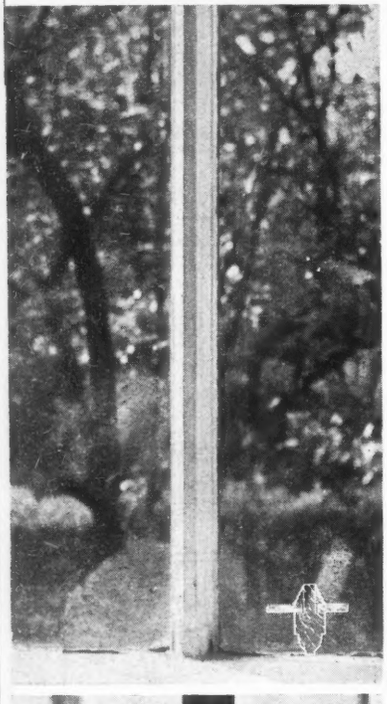

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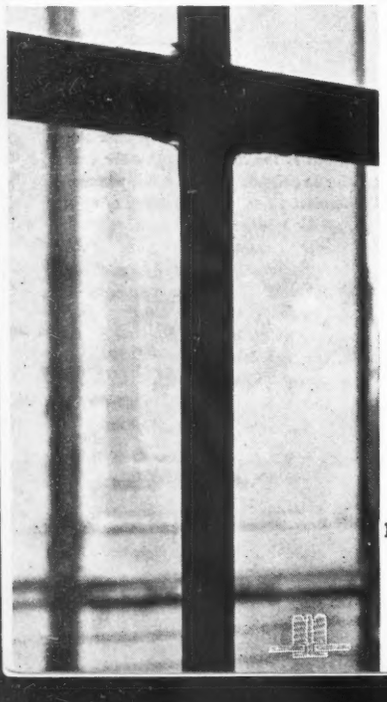


17

18

*Carving up the view:* 15, *an eighteenth-century hardwood glazing bar at Kensington Palace;* 16, *a typical softwood glazing bar, circa* 1900; *and* 17, *a contemporary steel glazing bar with outside glazing beads. The sections in the bottom right-hand corner of each picture are drawn to the same scale. The 'Carda' double-glazed horizontal pivot hung wood window,* 18, *has set the pattern of Swedish fenestration as has British Standard* 990 (*the ordinary metal window*) *in England.*

work at the Building Research Station should be mentioned. It has long been recognized that the quality of the light within a room depends very much upon the avoidance of hard contrasts on the window wall. In much traditional work, contrast between the brightness of the outside light and the dark face of the window wall was softened by the use of deep reveals, which were usually painted white and served as a zone of intermediate brightness. This effect, so well understood by the Georgians, was lost upon subsequent generations and much of the dinginess of Victorian interiors can be traced to their habit of painting window reveals chocolate or green, and framing them in drab brown hangings complete with pelmet. BRS, in analysing this aspect of glare, were able to show that the design of the glazing bar played a subtle but important part in the total effect. Once again the Georgians scored heavily, later imitators completely missing the subtlety of their design.

Worst offender in this respect is our old friend the standard steel casement, which presents, not a nicely graduated moulding, but a flat black expanse to carve up the view (17). If the bars are reversed to give inside beading, the position is somewhat improved, but at the expense of external appearance. It is to be observed that alloy windows, which being extruded do not have to adhere to rolled sections, initially followed the same unfortunate trends—an example of one of Hartland Thomas's 'carry-over forms.' However, in the United States, and latterly in this country, alloy windows are now being made in a variety of extrusions that should open up a new and exciting chapter in metal window design.

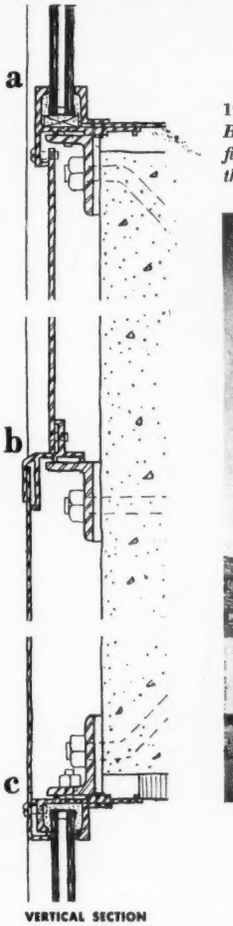
To digress a little, one may observe that, with the increasing mechanization of building products, design is more and more being dictated by the standardized products that may be available. Indeed, in the sphere of cheap building, design is altogether dictated by these patterns of standardization. In this country at present window standards are ill conceived, and the buildings in which they are used suffer correspondingly. In Sweden, where they have a range of standardized products which are pleasing in themselves, the whole environmental level of design is raised. The Swedish Carda window and windows of similar design so dominate the present-day scene as to remind one of the plate-glass Victorian scene instanced above. This window (18) is technically ingenious in that it turns completely round on its pivot, so that the outer frame faces into the room, thus enabling all four glass faces to be cleaned from within the room without fatigue. Hence the size of the window is unrestricted by cleaning difficulties. The Carda is essentially a big window, a window without glazing bars, for its cost decreases rapidly per unit area as the size increases, up to its maximum of 43 sq. ft. It is contrary to most designers' experience to find they can

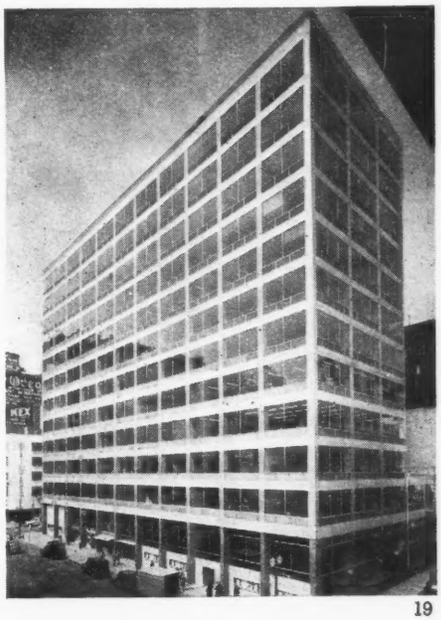
increase size and yet achieve a reduction in cost.

The Carda window is also designed to save fuel. Where winters are severe and fuel expensive, double glazing is undertaken as a matter of course, despite the addition to the initial capital cost. In this country we design neither for winter nor summer. Our buildings are cold and uncomfortable in winter and hot in summer. With a k value of 1.2 for single glazing, increased daylighting standards, particularly for schools which call for very considerable glazed areas, result in colossal heat losses. Double glazing will give a k value of around 0.6 and, from a standpoint of the conservation of national fuel resources alone, it should be insisted upon as official policy. Double glazing, by reducing the radiant heat loss from the body, makes a very big difference to the comfort of a room, irrespective of its air temperature, but it cannot be justified in this country of cheap fuel purely on financial grounds, unless the price of double-glazed windows is reduced.

Glazing is a not inconsiderable part of the expense of providing windows and the economics of glazing merit a passing note. When one glazes with small panes, the view being ignored, the cost will be from 10d. to 1s. per ft. sq. in sheet. The larger areas of glass demanded by the moderns rocket the price, inasmuch as plate glass must be used, and plate costs from 3s. 2d. to 3s. 9d. per ft. sq. A view window always has been and still is a luxury. If one begins to consider double glazing in large panes these prices are doubled. As an example, to provide a Carda window might cost 8s. per ft. sq. and to glaze it another 8s. Such a window will cost two or three times as much as the solid wall it replaces. The vast areas of polished plate double glazing, hermetically sealed at the edges, which make such attractive going in the newer Californian houses, cost in this country 15s. a foot. This type of glazing, called 'Thermopane,' is now available here at a price of twice the cost of the two sheets of glass for large areas and increasing to about seven times the cost for very small areas and it will be noticed that this type of glazing is usually fixed. Few can bear the expense of an elaborate opening frame in addition to the cost of the glass. To finish our category of prices, ¼ in. armour plate costs 6s. 6d. to 10s. per ft. sq. according to size. Hermetically sealed armour plate costs the earth and is in the air-travel bracket.

This cautionary paragraph explains in part why modern work over here misses some of the elan of recent American work. Elan costs money, and

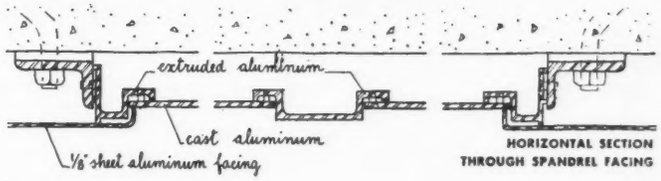


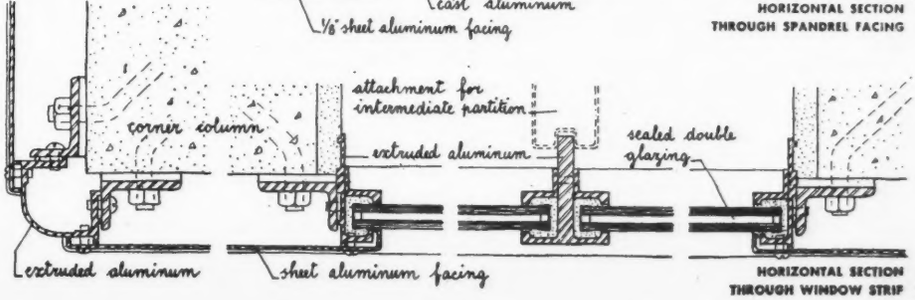



19, *an American double-glazed window hermetically sealed round the edges, used in Belluschi's office building at Portland, Oregon. The windows are huge sheets of fixed glazing set in purpose-designed aluminium extended sections.* 20, *section through the same window, which was produced almost regardless of expense for the special needs of the totally air-conditioned building. In the provision of windows, cost is the main factor which is now holding up improvements in design.* 21 *and* 22, *two window types from outside the building industry: a top-hung window suitable for a caravan trailer and the scissor-action motor-car window. This and subsequent diagrams have been taken from* Windows *by Geoffrey Baker and Bruno Funaro, recently published by the Architectural Book Publishing Company.*

19

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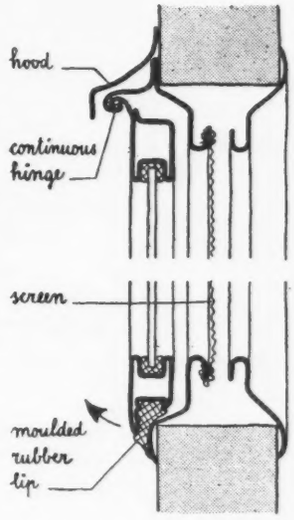


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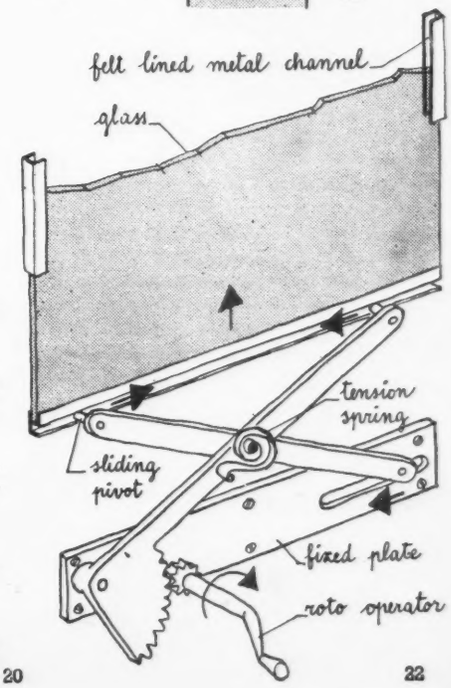


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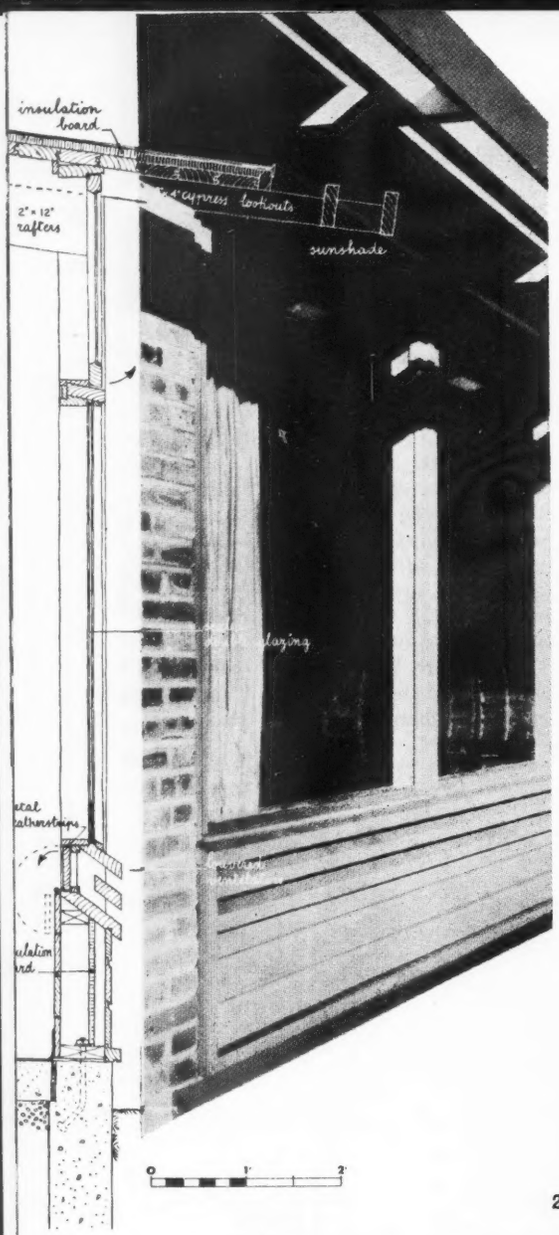


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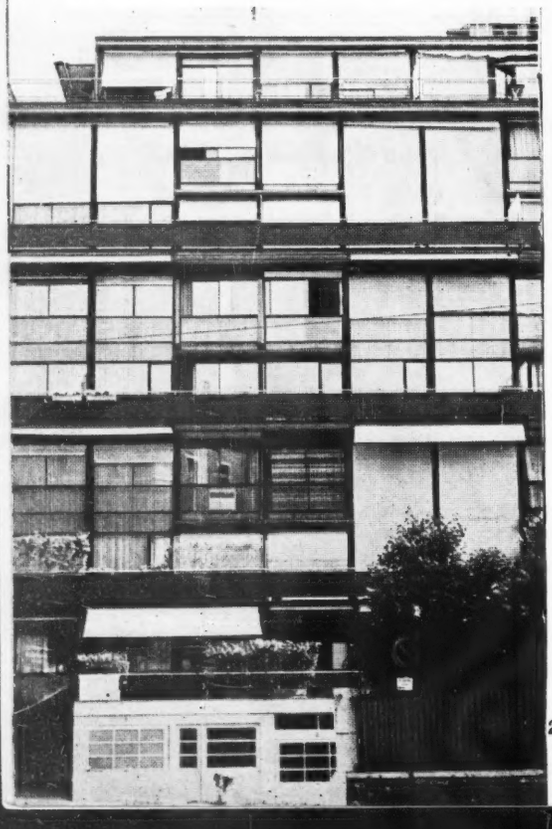

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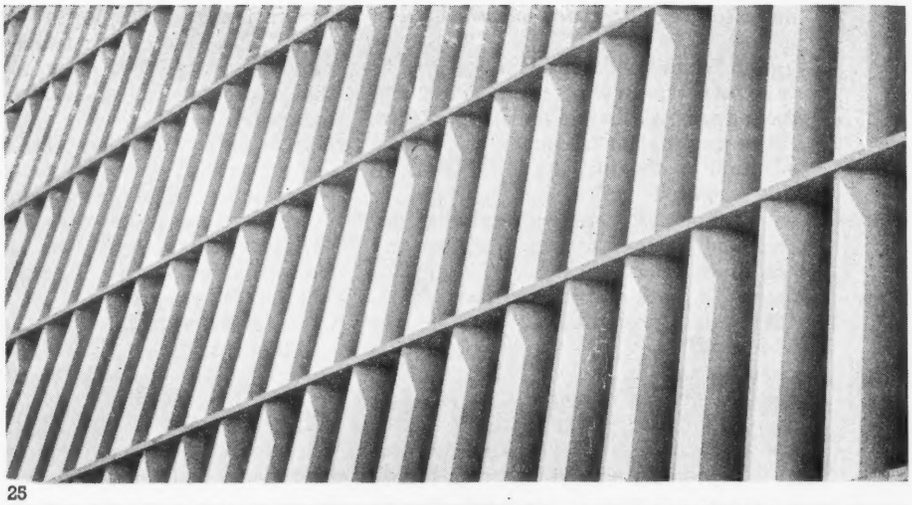

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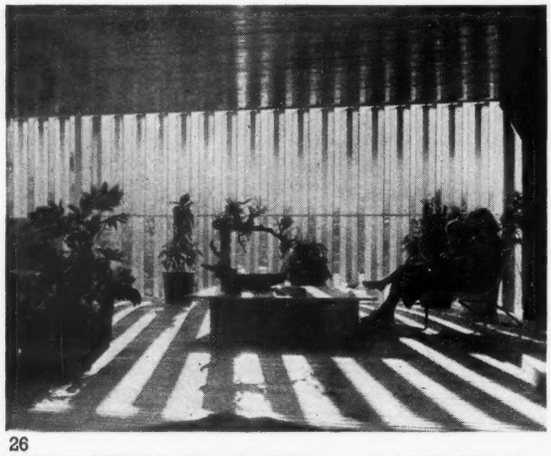

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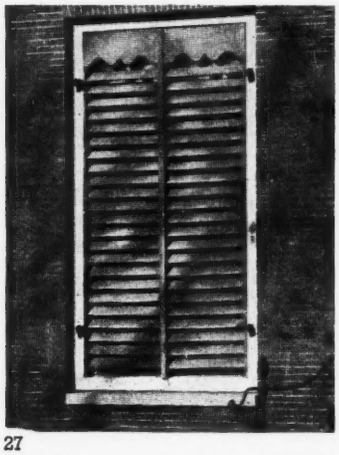

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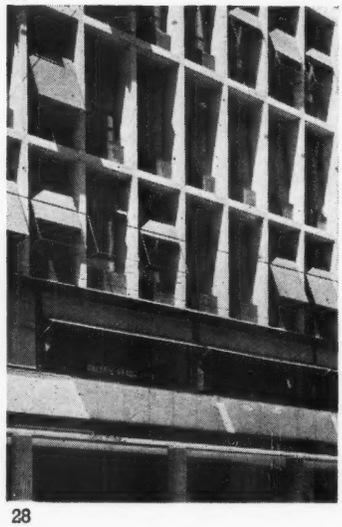

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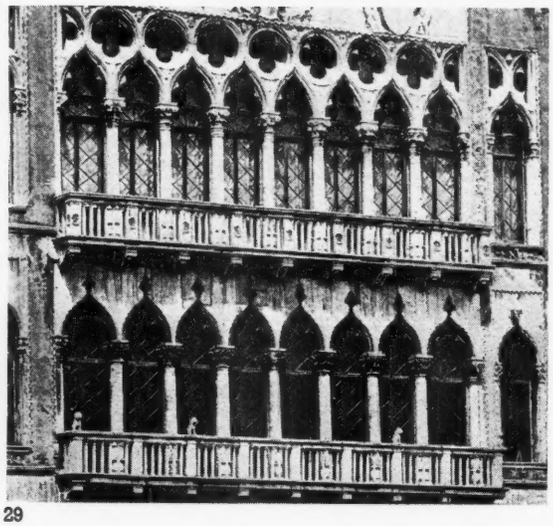
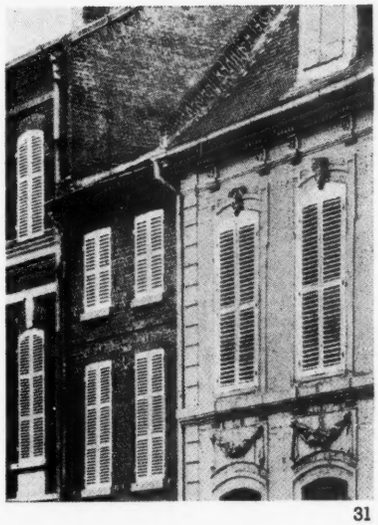


29

*23, architecture based upon a straightforward solution of the problems of daylight, sunlight and ventilation—and upon little else: a school at Glenview, Illinois, by Perkins, Wheeler and Hill. It could also be said that in Le Corbusier's Geneva flats,* 24, *the fenestration is in fact the building.* 25 *and* 26, *examples of the brise-soleil, the first from Brazil, the second from California. In the Dutch wooden shutter,* 27, *the pattern is the same, only the scale is different.* 28, *a Swiss example which combines brise-soleil and blinds; the fourteenth century Venetian solution to the same problem,* 29, *is very similar technically.*

30



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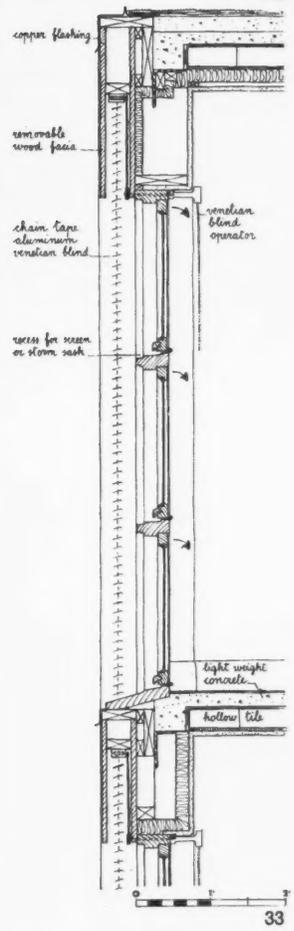



33

*The Baroque treatment of window wall,* 30, *in a northern climate should be compared with the brise-soleil on the facing page. Shuttered windows, blind, aloof and flush,* 31, *suggest hidden depths of reveal and interest. The window from old Venice,* 32, *exhibits every form of light control and ventilation known to America except the Venetian blind. Note the fixed ventilation at the top, lace curtains and no less than three means of cutting off light: curtains, roller shutters and wooden shutters.* 33, *a section showing the external use of the modern American aluminium lath Venetian blind.*

the tantalizing array of louvres, sun shades, blinds and brise-soleils wants a lot of affording for the limited allowance of sun we get over here.

* * *

Over the course of centuries every conceivable device has been brought into play to give accurate control of daylight and sunlight in many climes and under many different conceptions of the 'way of life,' and the varied textures developed from these needs have moulded complete architectural styles. At the present time in the Americas, light control by means of louvres, blinds and such impedimenta is running through the whole historical gamut and producing results of immense verve.

Most swaggering of recent manifestations is the brise-soleil outcrop in Brazil. In Brazil because, having decided on the skyscraper and having, in so doing, lost the cool deep shadow of the canyon street, such a protection is essential, like an eyelid, against the tropic sun. We need not labour a discussion of the textural effects, now so well known, obtained by these fixed and movable louvres. Exciting in its impact as each individual building is, one always expects a sameness to be reached, but, no, each new example seems to pull out just that extra difference in pattern.

The brise-soleil has been a feature of tropic architecture since architecture was an art. In India it produced the marble lacework of the Taj Mahal, and throughout the East the patterned wall of pierced timber (39, background) both admitting a filtered light and providing that all-over pattern of solid to void which gives such depth and richness to these lacework exteriors. Here is the antithesis to the glass wall.

Adapting this technique to a more temperate, but still warm, climate, it was sufficient in Venice to temper the sun with recessed balcony, arcaded and hung with fretted gothic arch and balustrade: more sophisticated and subtle than the Brazilian technique, some would say more beautiful, but the same purpose is served. In all these examples style is the handmaiden of use, and architecture is at its best.

The brise-soleil by present definition is an over-all pattern; it covers the entire façade, and this is the speciality of the effect. In this alone does it differ as an art-form from the louvred window. The texture of the louvred window is not to be distinguished from the brise-soleil, but the louvring of individual windows does not inhibit other architectural expression in the building. In France, louvred windows enrich the renaissance patterns and it is probable, I think, that in Brazil, too, the brise-soleil will come to be used in conjunction with more

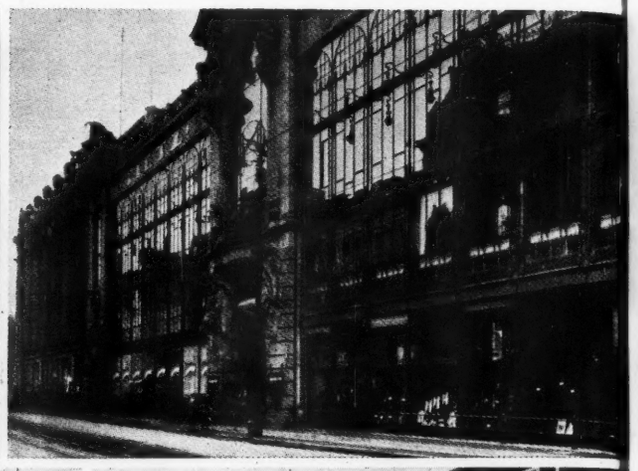
positive architectural statements.

The most adaptable form of louvre and one which gives the most flexible control of light and air is the venetian blind—curiously, in our Venetian example (32), there is every form of light control except this.

This form of blind was prevalent in Victorian England, but for a time suffered the eclipse that visited all forms of Victorian expression. To the general public it is still old-fashioned, and I can remember when, in my own home, they were taken down and replaced by curtains. I can also remember the laborious spring cleaning entailed when they were taken apart and washed in soap and water, slat by slat. The modern metal lath blind, an import from the States, may be cleaned in situ, thanks to the flexible slats. It cannot be said that the Victorians exploited this blind as an art-form; to them it was a piece of utility furniture, but contemporary designers have been quick to seize upon its possibilities for textural effects in combination with large surfaces of plate glass.

The illustrations showing light control by louvre and blind also show a very significant trend in window design —ventilation is being separated from the window, which becomes a fixed sheet solely for the admission of light. The advantage of this treatment is that, in designing a window as a light transmitter, one need not consider the irksome business of providing draught-proof ventilation. The simplicity and directness gained by this approach contribute much to recent foreign work. Such an approach is almost dictated by cost, as we have already seen in the case of double glazing. An example is Belluschi's office building at Portland, Oregon (19-20).

One of the first results of the exuberance of nineteenth century architects in the new mass-produced material —glass—was the window wall. Examples are to be found in all our big industrial cities, predating the well-known names of the modern movement, and still associated therefore with the eclectic architecture of the period (35, 36). In some of these buildings the style in which the designer was working has been attenuated almost out of existence and the buildings, because they have no positive statements of style, are quite 'dateless' and quite negative. A similar, more recent, building was Warenhaus Tietz, Berlin, now, I suppose, destroyed. The illustration (35) clearly shows that the glazed wall served principally as a mirror to set off the building across the street. There is, to be sure, an austere perfection in the mirroring surface of plate glass, but sheets of plate glass taken by themselves do not make works



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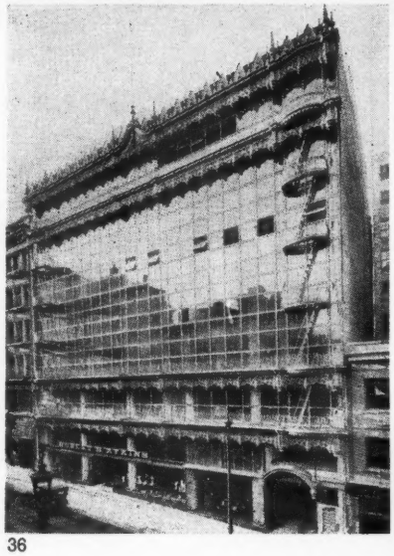

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38

34, *a window wall in cast iron, forming the whole of a London warehouse facade, probably of the end of the nineteenth century. The Warenhaus Tietz, Berlin, of* 1899, *and the Hallidie Building, San Francisco,* 35 *and* 36, *are more elaborate examples of the same principle.* 37, *a Russian example of an all-glass wall with a depressingly negative interior grinning through. Doubtless the curtains which shut off what is behind are removable, though this is still no guarantee of an aesthetic gain. In Philip Johnson's house at Connecticut,* 38, *the window wall has almost led to the dissolution of architecture altogether.*

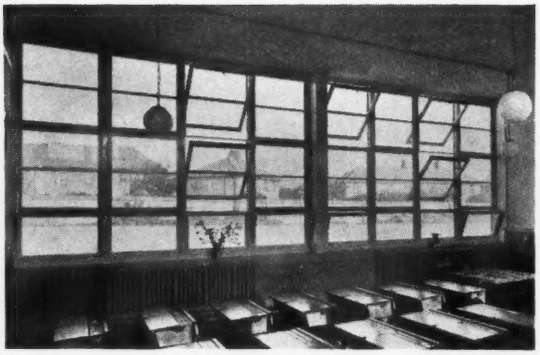
40

41

*The Chinese view window,* 39, *suggests that the circular shape is the perfect setting for a view. Note the fretwork walls of the building beyond. In Japan,* 40, *too, the opening is carefully adapted to frame the view. A current American example, a house in Weston, Massachusetts, by Karl Koch,* 41, *achieves the same ends by the same means.*

42

43



*This English window wall,* 42, *shows confusion of thought and aesthetic compromise. Ventilation and daylight are provided for in the most elementary way, without the* quality *of the lighting or the view being considered.* 43 *is better designed, but does the view justify a window wall?* 44 *is a set of analyses obtained by use of an adjustable model and sensitized paper. A model of the facade of a school was constructed to test effects of various louvred arrangements in lighting a classroom. A section of the room, one bay wide and of correct depth, was formed behind the model of the window wall and made light-tight. Walls and ceiling were covered with black paper to prevent reflections and sensitized paper was inserted at the working-plane level,* 2 *ft.* 6 *in. above the floor. The exposures therefore represent the effect of daylight on a strip of floor measuring* 10 *ft. broad by* 22 *ft. deep, front to back. The degree of gradation could be collated with previously calculated daylight factor values and, by established colour densities, the DF at any point of a complex example readily found by purely visual means. Specimen* a *shows the sharp gradation obtained with an unobstructed window. DF figures previously obtained indicated* 1.9 *per cent. at the back wall rising to* 20.0 *per cent. near the window. In* b *louvres have been added to bring down very sharply the light intensities towards the middle-front of the room without reducing the light at the rear. The light curve is flatter and much more satisfactory.* c *shows the same case as* b, *but with the added reflected light from white walls and ceiling, increasing the over-all intensity by about a third. In* d *a ceiling light* 3 *ft. in diameter has been added to provide fairly even illumination.*

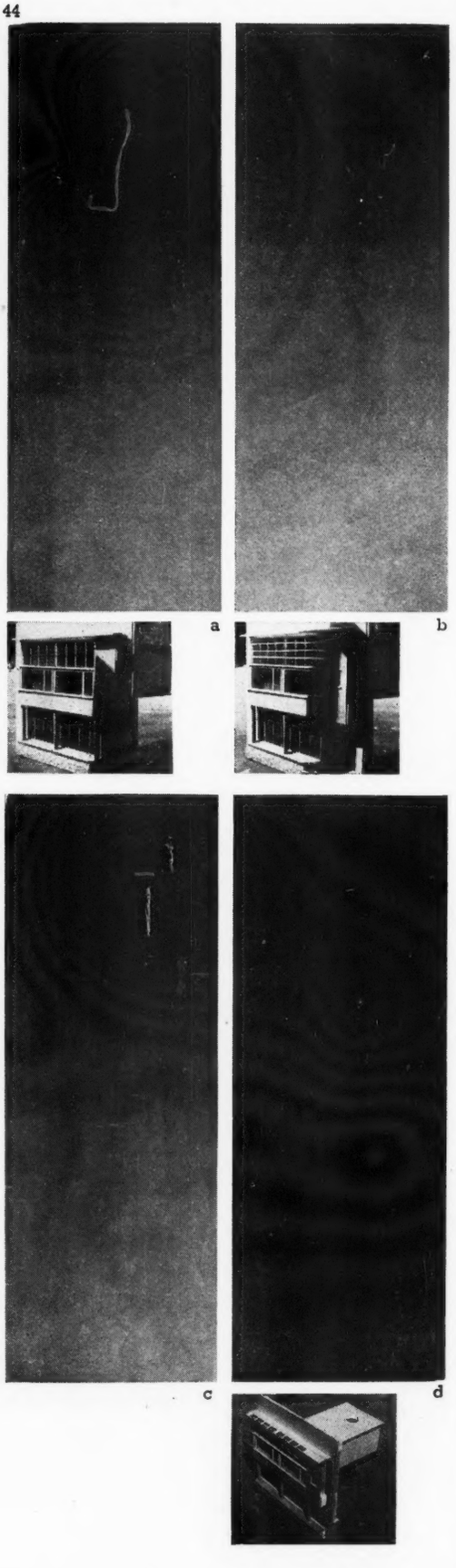
of art. The glass wall depends for most of its effect upon what lies behind it. In the arid Soviet example (37) the interior, which is displayed with such thoroughness, is itself bankrupt of ideas, whereas Asplund (3, on page 112) uses his glass wall to set off an interior of unusual charm and elegance.

The glass wall serves equally, of course, to give a view out—the view window. This also is a development from time immemorial. The Chinese were particularly apt at providing windows of shapes chosen to set off the view to special advantage (39) and the Japanese brought to perfection, in the centuries of the Shogunate, the view window wall, now so much admired in Hollywood. The Japanese window wall consists of wooden sliding screens covered with translucent paper—through which a diffused mellow light pervades the interior of the room, and which, when opened, and framed by the wide verandah and supporting posts, provide an ideal setting for the contemplation of a carefully chosen garden (40), or the special view across country. The American window fulfils the same general function but characteristically allows the central heating to be on whilst the view is being enjoyed (41).

The window wall used thus is part of a philosophy of living; it is no longer merely a means of admitting light. It enables us to live closer to nature and is understandably more popular in favourable climates, by which is meant almost any climate other than ours. It has, however, come into being here to a limited extent, more particularly in connection with school buildings, as a means of fulfilling announced requirements for sun, light and air for children. These commendable objectives have sometimes been attained with more zeal than perception. No one desires a view window or window wall unless there is a view worth looking on to—a window looking out on an aimless expanse of tarmac is the negation of an invitation to nature. The solution is equally barren that, in these circumstances and in an apparent conviction that none will look out of it, produces a window wall so cluttered up with ventilation units, catering for all possible bearings of weather—hoppers, top and bottom hung, side hung, h.p.h.—that the wall becomes a barred prison, an abject compromise. It is easy to satisfy scientific demands for light and air without all this bother and there is, indeed, a lesson to be learned here from the best practice in other countries.

It might be that these notes have tended to dwell upon the achievements of other countries at the expense of our own. We are apt to feel 'if only we had the opportunities they have in Brazil.' . . . I was talking to a representative of one of our well-known metal window manufacturers, looking through the well-thumbed, dreary types of window being offered in this melancholy island bazaar, when he casually mentioned that he made most of Niemeyer's brise-soleils.

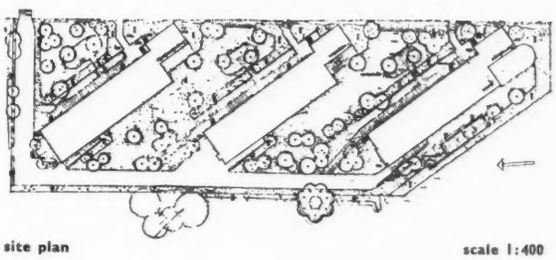
44



1 south-west elevation of the flats at Gentofte, Copenhagen

# FLATS AT COPENHAGEN

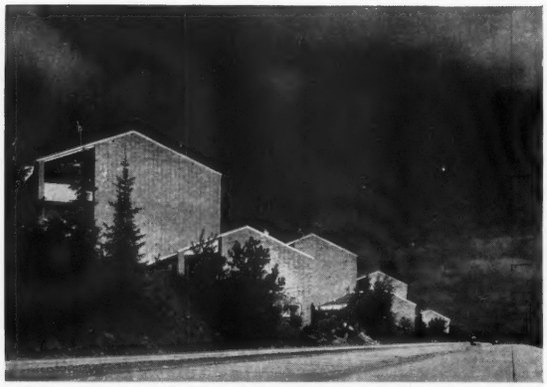
## ARNE JACOBSEN: ARCHITECT



site plan scale 1:400

To alleviate the shortage of housing for young married couples in Gentofte, and also as a tribute to the part played by youth in the war, the local council, following a suggestion made by Hans Olsen, a master carpenter, decided in 1946 to endow a group of "youth dwellings." A suitable site, bounded by a small lake, was made available by the local council.

The buildings comprise three blocks and contain 72 flats in all. These face south-west and are staggered in such a way that every flat has an open view. Nur-

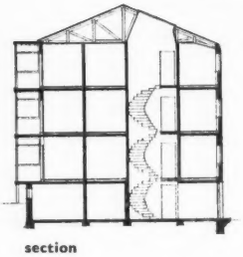


2 the blocks seen from the west

series for children up to two years old and from two to three years old are arranged in the two southernmost buildings whilst the third accommodates the staff and is provided with a perambulator park. These child-welfare institutions are managed by a child welfare organisation in Gentofte.

As the buildings are designed for young newly married people the flats are small. Those containing one room with an alcove, or one living room and a bedroom, have a large dining kitchen, but the two-living-room flats have an ordinary kitchen. In the largest of the two-room flats there is a dining niche in the living room. All the kitchens have cold cupboards connected to a central refrigerator in each block. In the basement of the south block there is an "entertaining room" with its own kitchen which tenants can use for parties. The basement of the north block is fitted up with workshops and leading from a mechanical laundry are sewing rooms for the repair of linen, etc. The garden, planned by the

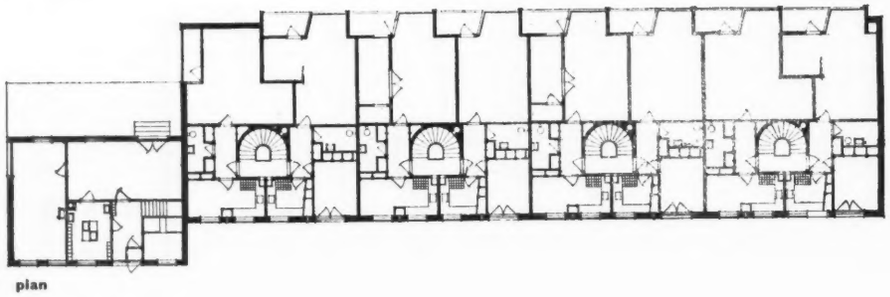
3 the staggering, which gives every flat an open view



section

On the facing page, above, is shown the detailing of the balconies on the south-west façade, which are faced with pre-cast concrete slabs. Below is an interior showing one of these balconies and its view of the lake beyond.

scale 1:400



plan

6

6, the two southernmost blocks from the east. 7, an aerial view of the site

### *FLATS AT COPENHAGEN*

7

landscape gardener Axel Andersen, includes playgrounds both for the children in the nurseries and for other children. The landscaping of the edge of the lake has also been planned by him. The walls are of yellow brick and the roofs covered with blue tiles. The floors are of hollow blocks. The south-west sides carry balconies and canopies of reinforced concrete fronted by pre-cast concrete slabs.

FURNITURE

***Everybody in America knows what a Morris Chair is. It is an armchair with wooden arms, loose seat cushions, adjustable back and loose back cushion.*** In England, it seems, the term is applied instead to the rush-seated ladder-back chair, also known as a Sussex chair. In America no one until quite recently seems to have doubted that the type of armchair described was an innovation of William Morris. In 1941 however, in the section devoted to an 'Outline of the Development of Modern Furniture' in *Organic Design* (a catalogue of designs resulting from a competition promoted by the Museum of Modern Art in New York), we read that 'the Morris chair, while probably not designed by Morris himself, may be called the first modern chair.'

This sentence contains two statements in need of comment: Did Morris design the Morris chair, and can it be called the first modern chair? The statement in *Organic Design* was illustrated by a photograph (1)

1

of a large chair with adjustable back designed in the 'Mission' style, which flourished in American commerce after 1900. 'Mission' was also the style adopted, seemingly around 1905, by Elbert Hubbard for his Roycrofters' furniture; and as far back as 1900, in one of Hubbard's *Little Journeys to the Homes of English Authors: William Morris*, he had claimed: 'The first (Morris chair) was made entirely by the hands of the master . . . William Morris chairs . . . can be obtained, nearly as excellent as the one in which I rested at Kelmscott House—broad, deep, massive . . . and covered with leather that would delight a bookbinder.' He had visited Morris in 1894; his eager bombastic tone throughout this *Journey* casts serious doubt on the accuracy of his six years old recollections.

The possibilities of confusion caused by this uncertainty are demonstrated in an Italian monograph, *William Morris* by Giancarlo De Carlo, published in 1947, the first of an admirable series on architects of the modern movement. Here the same chair as used in the Museum catalogue is prominently illustrated as if it were a work of the English master, despite the cautious phrasing of the American booklet, and despite the dollar sign showing clearly in the original illustration. The mistake may have occurred because in *Organic Design* the discussion is centred around William Morris, and because Mission style furniture was an earnest adaptation of English 'Arts and Crafts' design, which derived much of its teachings from William Morris among others. Yet Mission is both more severely unornamented and more tinged with allusions to the western frontier (for example the soft leather thongs) than anything designed in Britain.

In attempting to clear this confusion, the first clue I found was tantalizing, a cut in Marta K. Sironen's survey of Grand Rapids progress, *A History of American Furniture* (2). As can be seen from its caption, which includes the date 1881, this illustration seemed to place well within William Morris's lifetime a chair whose main feature, the adjustable back, was quite like that of the chair in (1). And could not the word 'celebrated' which appears in the caption within quotes be taken as a reference to the English master? Miss Sironen's book shows that

2

she was considered an authority on decoration by *Harper's Bazaar* in 1882. Further information on the Morris chair in America is taken from the chapter dealing with the years 1890-1900: 'In living room furniture the Morris chair was by far the most widely used in the average home. . . . One of the leading furniture houses . . . had 18 Morris chairs in (its) winter display of 1898 . . . Morris chairs sold for $1.50 each. . . .' Perhaps most interesting of all the facts that Miss Sironen's book revealed was the style of the chair dated 1881. It was very far indeed from the unornamented surfaces, outspoken structure and straight lines of (1). Could it be that Morris's clear doctrines of 'idealism and honesty' exemplified in the Mission style version had

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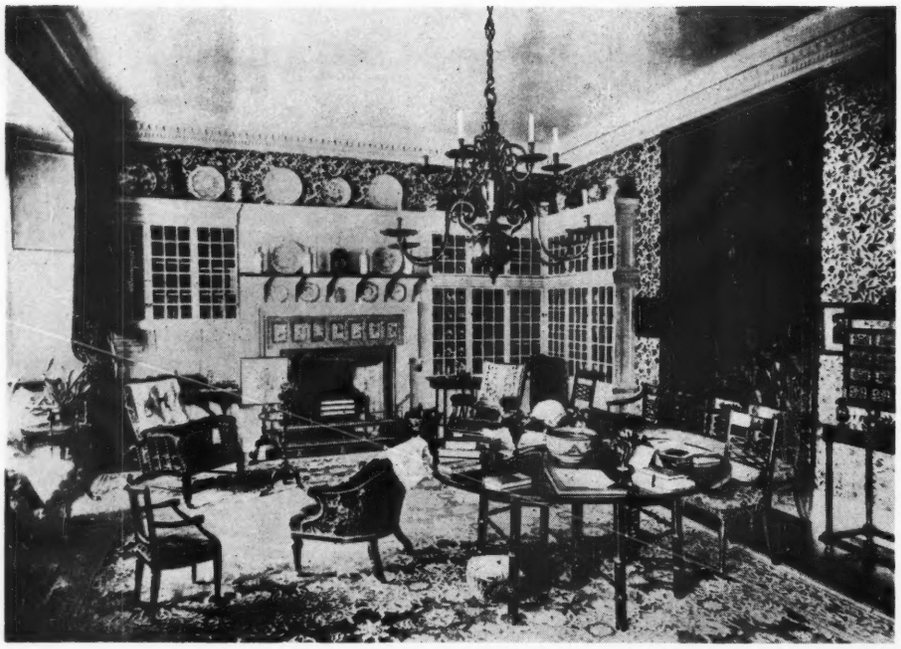

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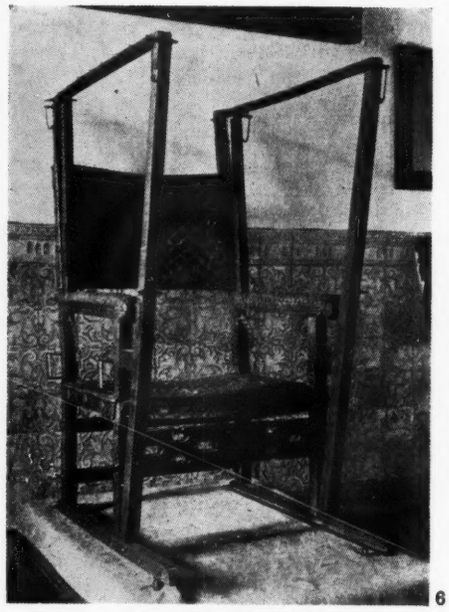
been recaptured from some English original, while the Grand Rapids chair was a commercial elaboration?

The next indications came to hand in the summer of 1946, when a new exhibition required the search for a good photograph of a William Morris interior. The most likely sources secured Morris's *Collected Works* on the one hand, and Hermann Muthesius's *Die Englische Baukunst der Gegenwart*. Both proved rewarding. In volume XXIII of the *Collected Works* is an illustration (3) from Morris's own house, Kelmscott House at Hammersmith, showing a Morris chair very close to the embarrassingly ugly chair from Grand Rapids, and in Muthesius's book is a plate (4) illustrating a corner of an upstairs sitting room in Norman Shaw's Old Swan House which had been furnished in large part by Morris & Co. in 1877. However, in this room were pieces of furniture evidently not designed by Morris, and if a chair with an adjustable back had seemed to Morris a sound idea, he might even have introduced one into his own house without its being a piece of his own make. The final solution came with two catalogues of Morris & Co. at the Victoria and Albert Museum in London; late catalogues, it is true, for they are datable c. 1912, but catalogues of the firm all the same. One is called *Specimens of Upholstered Furniture*, the other *House Decorating and Furnishing*. Both contain illustrations of the very chair which appears in Muthesius's book (5).

5

But can Morris therefore be regarded as the established designer of the Morris chair? Morris's firm no doubt, but Morris himself? Henry Hope in his unpublished doctor thesis on *The Sources of Art Nouveau* (Harvard University Library, December, 1942, p. 37) attributes the chair to George Warrington Taylor, manager of Morris & Co. from 1865 to 1870; he is reported to have copied it from 'a medieval model.' Warrington Taylor is also credited in J. W. Mackail's standard *Life of William Morris* with having picked up the first Sussex chair in a village in Sussex; adaptations of this kind of chair became best-sellers for Morris & Co. and their competitors. Perhaps Mackail's story gave rise to the one mentioned in Mr. Hope's thesis. Since this could not be determined, it seemed necessary to consider the possibility of an old prototype for the adjustable back of the Morris chair.

Standard works on European furniture yielded only another type of device for adjusting the angle of a chair back, seen in French chairs called *à la crémaillère*. Such a chair has metal straps attached to the back on both sides; through notches or holes spaced along their length these straps can be pinned to the arms of the chair. These chairs were used principally by invalids; indeed the earliest example of this manner of construction I have found (it would be most interesting to learn of yet older ones) is the chair used during his last years by Philip II of Spain. Old and very sick, he was carried in this contraption from the new capital at Madrid up the long mountain roads to watch the immense Escorial rising at his will. When he died in 1598 the chair remained at the monastery, and it can be seen in his apartment there today (6).



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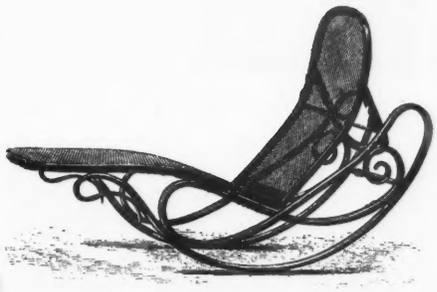
Before seeing King Philip's chair, I had been directed for advice about early English furniture to Messrs. Wolsey, of London, who were kind enough to send some very interesting photographs from their files. These showed variations of the *crémaillère* principle; the most revealing photograph (7) is described as 'the small

7

child's rocker-armchair (date about 1790, possibly as early a rocker-armchair as is known here).' Yet like others, this chair, whose shapes may seem precursors of Thonet bentwood (begun in 1836), does not show the rearward projecting arms and movable transverse rod that characterize the Morris chair. Thonet exhibited a reclining chair of extraordinary design at



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the Philadelphia Centennial Exhibition of 1876 (8). The back of this chair can be adjusted with a mechanism not unlike that in the Morris chairs which are here traced to the year 1877.

Perhaps in time some evidence will appear to show that this construction was known before the nineteenth century's last third. As long as we do not possess such evidence, we must give the entirety of this chair (the most beloved chair of a whole era) to the time and circle of William Morris. But are we therefore justified in crediting Morris with the creation of 'the first modern chair'? I think not. For the Morris chair shows only one kind of adjustable back, a way to secure comfort that began to be available at least by the 1590's. Furniture with simple mechanical features was made in Europe even earlier, as shown in Giedion's *Mechanization Takes Command*. Modern notions of seating comfort may be said to begin with the German anatomist H. von Meyer, a contemporary of William Morris's; though there is no relationship between the Morris chair and von Meyer's conclusions. Stylistically, the original Morris chair shows a blend of Regency lines and Romanesque detail combined with true Victorian originality and verve. There is no discernible foreshadowing of modern design. We can say that neither in its structure nor in its style is the original Morris chair related to modern furniture, which began to take shape in the late 1880's, perhaps less than twenty years after this chair was designed by someone close to William Morris, possibly Morris himself or the firm's manager, Taylor; more likely the architect Philip Webb, or his pupil George Jack, both regular furniture designers for Morris and Co.

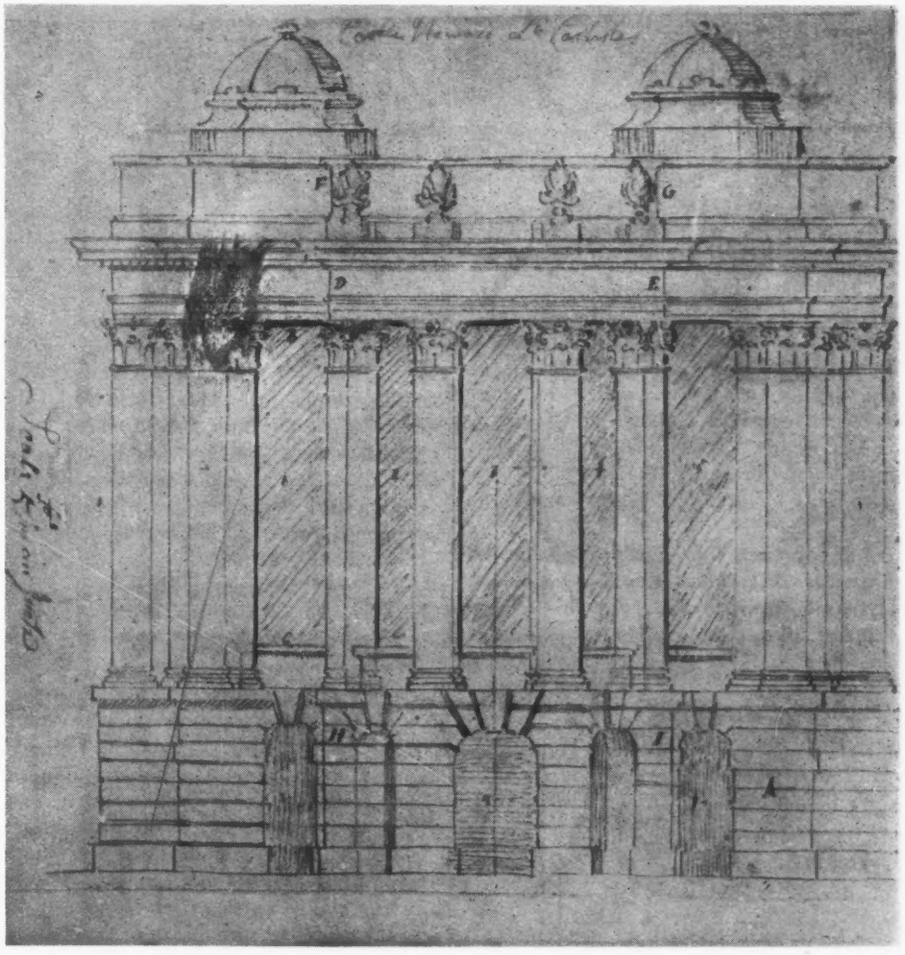
**Edgar Kaufman**

## HISTORY

***Amongst various drawings for Castle Howard in the British Museum is one (K 45(18)c), which in an accompanying note is described as a design for the west front of the 'Great Cabinet'. What does it reveal?*** The drawing shows a narrow front with a rusticated basement, a giant Corinthian order with a heavy architrave, and a low attic story crowned by two small cupolas. The relation in depth of the various parts is not quite clear: the three centre bays are projecting in a semi-circle like a large bow window; the two bays on either side are straight and lie slightly in front of the ends, which are decorated by a pair of pilasters. The entablature follows the outline of the façade, the attic, however, is according to the written commentary straight, but seems to repeat the movements of the façade. Five archways lead into the ground floor and five huge windows filling nearly the whole height of the great order illuminate the principal floor.

A note on the drawing runs as follows:

This is the West front of the great Cabinet. I am not exact in the number of Rustick in the basement. but the number must be regulated by my Lord's Appartment and the arching wants(?) drawne out at Large, which I pray you to do and give me an account how it hitt's for I have not the draught of my Ld End, so can't(?) adjust it myself. if you find any difficulty pray send me a rough sketch(?) of my Ld front and I will settle it. The Windows. 1. 2. 3. 4. 5 you see goes up to the top B. C. the pilasters Cornices moldgs as in my Ld appartment. The Entablature from D to E is circular the Attick from F to G is straight Lay a chain of Iron from H to I and another from D to E.[1]



Since this drawing clearly refers to Castle Howard, a fact which can also be established by comparing it with the engraving in Colin Campbell's *Vitruvius Britannicus*, we must look to the Hawksmoor-Vanbrugh group for its author. Although the handwriting of the two architects is sometimes very much alike —particularly after their co-operation had gone on for some time—in this case one can say that it is Hawksmoor's. It is the spelling which gives away his identity, Vanbrugh is always more correct and modern, Hawksmoor far more erratic and never consistent. Moreover the technique of the drawing appears to be Hawksmoor's. The way the rustication is drawn, the hatching of the windows and archways, the very fine hatching on the left upper part of the rustication and underneath the window sills, the manner in which the capitals are indicated and the vases shaped; all these details make Hawksmoor's authorship more than probable.

But authorship arrived at by such means need refer only to the draughtsman, not necessarily to the designer. Perhaps

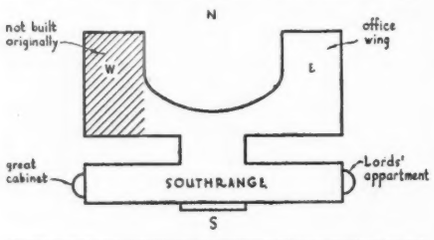
[1] There is no indication to whom this note is addressed.

Vanbrugh wanted a bow window in this particular place and two crowning cupolas, but left the details to Hawksmoor, or Vanbrugh may have planned and devised the interior arrangement and asked Hawksmoor to cope with things like the orders to be used, the rustication, the architrave, etc. All this, of course, must remain conjectural. Yet it is probably justifiable to say that Hawksmoor's strength did not lie in the conception or organization of interior space[2], and that therefore the collaboration of the two men may have worked so that Vanbrugh laid out and planned the interior and Hawksmoor shaped the exterior shell, not without Vanbrugh still contributing certain ideas.

The building history of Castle Howard has never been quite cleared up. This unpublished drawing may shed some light on it. One can assume that the plans were ready in 1699. The construction began in 1700, and the building was fairly advanced by 1703, as can be seen from this entry in the accounts: 'Received . . . for all Mason works, the Ofice Wing and likewise all the Mason's work in my Lord's apartment—circular Corridor and the Main Pile, measured up to the setting on of the great Bases.'[3]

In 1705 'Mr. Salyn Joiner' and 'Sam Carpenter' were busy decorating 'the Drawing room next ye the Main Pile,' and also 'My Lord's Great Cabinet,' and in the same year 'Mr. Nedo'—Nadault according to Tipping and Hussey—was paid £137 for work in the 'Ld Apartment,' and 'Grand Cabinett.'[4] In the following year Sam Carpenter executed 'Cartozzas' in my 'Lord's Grand Cabinett' and frames were cut for pictures above 'ye Glasses in ye Cabinett.'[5] All this goes to prove that these rooms including the Great Cabinet were built by 1705 and ready for decoration.

Judging from Campbell's engraving in *Vitruvius Britannicus* the Great Cabinet and its bow window can only have been situated at one end of the south range. This is also the conclusion arrived at by Avray Tipping and Mr. Hussey, but they assume that the great cabinet must have been at its east end, for it is their view that the west part cannot have been far enough




[2] In this may lie the explanation of the fact that Hawksmoor built only one house on his own.

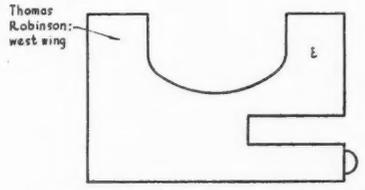
[3] H. A. Tipping and C. Hussey, *English Homes*, Per. IV, Vol. II, p. 6.

[4] H. A. Tipping and C. Hussey, loc. cit., p. 10 ff.

[5] H. A. Tipping and C. Hussey, loc. cit., p. 16.

advanced in 1705—if built at all—to be ready for the decorator.[6]

The drawing illustrated on p. 133 however makes it quite clear that the Great Cabinet was situated at the west end: 'This is the West front of my Lord's Great Cabinet.' The fact that 'my Lord's Apartment' is referred to as being identical in architectural arrangement leads us to the conclusion that the latter is to be looked for at the east end of the south range. This very accurate information on the position of these two rooms, together with the bills and reports which have survived, allow us to establish the progress of the building more definitely than has been possible so far. It must have gone from the east wing (the office wing) and the east part of the south range (My Lord's appartment) to the Main Pile as the first lap, as it were, and thence westward, from the Drawing Room next to the Main Pile to the Great Cabinet as the second stage.




If in 1705 the interior of these last named rooms was decorated the whole of the building with the exception of the west wing must have been erected by then. That means that when Sir Thomas Robinson later in the century built this west wing, into which he incorporated the west end of the south range, he must have pulled down or enclosed somehow the western pavilion and the adjoining bays. Whether also at that time the bow window of the eastern pavilion was removed and the façade flattened, or whether that happened earlier or later, it is impossible to decide at present.

The new drawing is however of importance for yet another reason. It is, as likewise the one of the dome of the Main Pile, in the possession of Professor G. Webb,[7] a proof of the accuracy of the engravings in *Vitruvius Britannicus*[8] which one finds so often questioned. Although the present state of Castle Howard differs from Campbell's rendering, his engravings agree with these two drawings, and what alterations in the plans were made must have been made after Colin Campbell received his instructions. Vanbrugh was obviously at great pains to provide Campbell with accurate and correct drawings of the latest stages of his design.[9]

**S. Lang**

[6] H. A. Tipping and C. Hussey, loc. cit., p. 20.

[7] Published in Wren Society, Vol. XVII, p. 1. L.

[8] I am greatly indebted to Prof. Webb for having drawn my attention to this fact.

[9] This becomes quite evident from his correspondence with Joynes and Hawksmoor, see B.M. Add. Mss. 19, 605, various.

## DECORATION

*To let the inhabitants of a housing estate themselves decorate the façades of the public buildings is a new contribution to the community centre idea, which has recently been tried out in Sweden.* At the large modern housing estate south of Stockholm called Årsta, a so-called *Centrum* is now being built in stages. It will eventually comprise a market square, concert hall, cinema, garage, shopping centre, restaurant, library and so on. The first building to be completed (shown opposite) is a row of shops and medical centre. It is a brick building of a fairly austere and utilitarian character, but something curious and significant has happened to it.

The architects—two brothers, Erik and Tore Ahlsén, one of whom, Erik, ran a section of the Swedish Co-operative Society's Architects' Office between 1935 and 1946—have desired the whole community to take an interest and pride in their new communal buildings to such an extent that they have permitted and encouraged anyone who wishes to lend a hand in decorating the façades in their own fashion with brightly coloured distemper.

The lead was taken by an artist. At first people just stood around and scoffed as they watched him daubing on the colours. Then one or two asked if they could join in, and the final result is as shown on the opposite page.

The charmingly naïve idea of the architects was that the People should be allowed to express themselves spontaneously and joyfully in a public fashion—an idea which is in fact very self-conscious and can but lead, on account of the lack of any tradition for such expression, and the lack of a primitive social set-up based on a simple economy and outlook, to æsthetic chaos. This is, nevertheless, an interesting and amusing experiment.

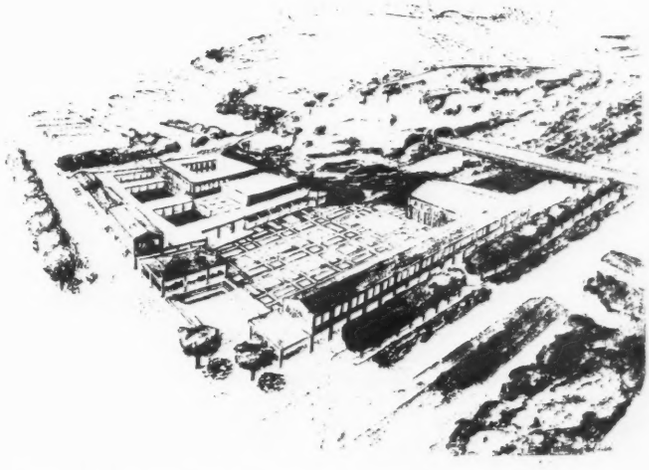
**E. de M.**

## BOOKS

### ROYAL GALLERY

LA GRANDE GALERIE DU BORD DE L'EAU. *By Christiane Aulanier. Editions des Musées Nationaux, Paris.*

In her book on the History of the Grande Galerie of the Louvre, Christiane Aulanier gives a vivid and detailed account of the origin and development of what is today one of the most famous picture galleries in the world. From its original conception by Catharine de Medici in 1565, as a covered



*Above, the first completed building of the new Årsta Housing Estate near Stockholm (see DECORATION on facing page). Left, a window detail, and right, an aerial view of the whole projected estate.*

1 *The Grande Galerie as it was, from the book by Christian Aulanier, reviewed on p.* 130.

2 *Hubert Robert's project of* 1796 *which formed the basis of the modern adaptation.*

3 *Imaginative picture by Robert of the Grande Galerie as a ruin, exhibited in* 1796.

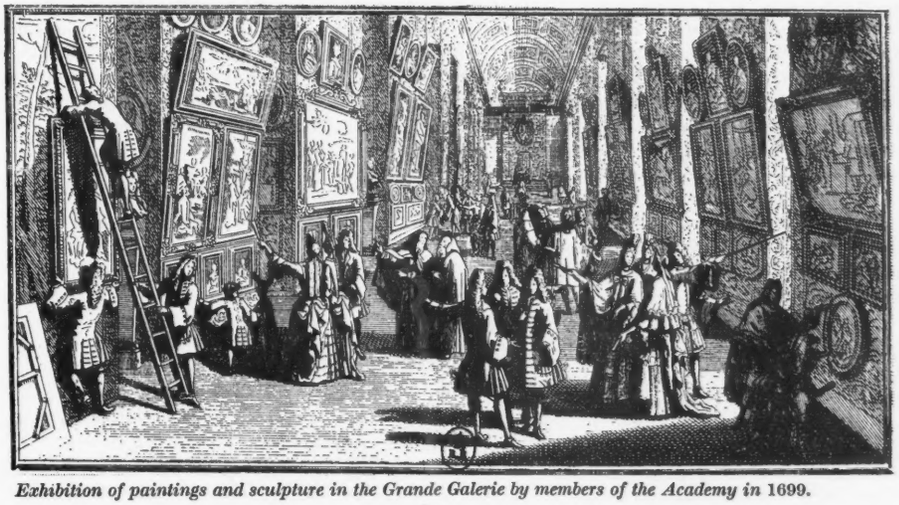
4 *A coloured lithograph of the Grande Galerie of the Louvre in* 1858 *by J. Arnout.*

5 *The Grande Galerie in* 1880, *from a painting by Victor Duval.*

6 *Photograph of the Grande Galerie as it is today.*

passage to unite the old palace of the Louvre with the newly built Tuileries, the author traces the various phases in its evolution together with the history of its adaptation as a picture gallery down to the present day when, completely modernized, it was re-opened after the war in 1947.

Originally part of the royal residence, and used as a playground and promenade for the king's children, it was deserted when Louis XIV, abandoning the Louvre, took up permanent residence at Versailles. But until the end of the nineteenth century it continued to be used for state occasions, festivities and concerts, among the most famous of which were the banquet offered to General Bonaparte in 1797 and the brilliant and colourful procession for the wedding of Napoleon I and Marie Louise.



*Exhibition of paintings and sculpture in the Grande Galerie by members of the Academy in* 1699.

The first record of the Grande Galerie being used as a picture gallery was in 1699 when from September 2 to 22 the members of the Royal Academy of Painting and Sculpture were granted the king's permission to exhibit their work in it. The idea of turning the Grande Galerie from an occasional exhibition hall into a permanent museum to house the royal collection of paintings gained ground rapidly and towards the end of the eighteenth century plans were completed for opening one half of the gallery. It was not, however, until 1801 that the gallery in its entire length was utilized for this purpose and it was then opened permanently to the public.

One of the most difficult factors was the problem of lighting. The ceiling, which had originally been covered with elaborate stucco work, was still without openings and the lighting was effected only from the side. The idea of an illumination from above went back to the eighteenth century, but it was the painter Hubert Robert, for many years keeper of the royal collection of pictures, who had the most original and interesting ideas for the decoration and lighting of his beloved 'Grande Galerie.' In a series of paintings and sketches he produced accurate reproductions and imaginative pictures—new ideas for the gallery. Among the most interesting is a project for a complete reorganization with lighting from above. His painting shows the glass panes in the ceiling separated by double arches resting on cornices. Six of them, projecting slightly, rest on either side on a group of four coupled Corinthian columns thus dividing the gallery into bays which enliven the monotony whilst in no way interfering with the magnificent perspective of the whole. The remaining double arches correspond to the windows, which were to be removed and the recesses transformed into niches containing statues. It is interesting to note that in 1937, when a complete redecoration of the Grande Galerie was envisaged, to remove as far as possible the disastrous alterations effected during the second half of the nineteenth century, the keeper René Huyghe, turned to the plans of Hubert Robert for its realization. Though at the time there was great opposition to his scheme which was only to be carried out with considerable alterations, the war intervened and the project had to be abandoned. The modernization of the Grande Galerie was finally achieved after the war and under the direction of George Salles Hubert Robert's ideas again triumphed and with slight modification form the basis for the present transformation. Christiane Aulanier's book, which is written in a pleasant easy style, offers a source of pleasure and information to all who are interested in a gallery which, famous for its brilliant collections, is also so intimately linked with the history and culture of France.

**Marguerite Kay**

## SENSE AND SENSIBILITY

LANDSCAPE INTO ART. *By Kenneth Clark. John Murray*, 1950. 25*s*.

It would be blatantly unwise of me not to insist on what the *Kunsthistoriker* can do for the critical study of art in Britain, and has done for it during the last fifteen years (Saxl, Wittkower, Pächt, etc.). But in reading Sir Kenneth Clark's Slade Lectures one cannot help speculating on the more retiring excellencies which some years at Oxford and Cambridge, sufficient leisure, and quiet study of literature and history for the sheer delight of study, can develop in a man, provided by nature with high discrimination and sensitivity. Sir Kenneth possesses all these enviable qualities and, in addition, a rare gift of felicitous expression. Passages such as the following on Courbet could not be improved:

'Courbet, though he could use his eyes to great effect, was sometimes prouder of his productive powers than of his perception. At such times he cheerfully substituted a false sensation for a real one, and the remarkable thing is that his false sensations are exactly those which have satisfied the popular eye ever since.'

Again this paragraph on Monet seems to me as near perfection as any writing on pictures can get:

'It was Monet, the real inventor of Impressionism, who alone had the courage to push its doctrines through to their conclusion. Not content with the sparkle of his Riviera scenes he undertook to prove that the object painted was of no importance, the sensation of light was the only true subject. He said to an American pupil that "he wished he had been born blind and then had suddenly gained his sight so that he would have begun to paint without knowing what the objects were that he saw before him." It is the most extreme, and most absurd, statement of the sensational æsthetic. Actually Monet's technique made him particularly dependent on the nature of his subjects; and they were limited. Only sun on water and sun on snow could give full play to the prismatic vision and the sparkling touch. In such pictures Monet has remained without an equal. But in order to prove his point he chose for the subjects of his experiments, Cathedrals and Haystacks. No doubt he did so intentionally in order to show that the most articulate works of man, and the most formless, were pictorially of equal importance to the painter of light. But the choice, especially that of cathedrals, was disastrous, because grey Gothic façades do not sparkle. In an attempt to make them vehicles of light Monet painted them now pink, now mauve, now orange; and it is evident that even he, with his marvellous capacity for seeing the complementary colours of a shadow, did not really believe that cathedrals looked like melting ice-creams. In these muffled, obstinate pictures impressionism has departed altogether from the natural vision from which it sprang, and has become as much an abstraction as Gilpin's picturesque.'

Space available does not allow one to quote more such examples, but they could easily be multiplied, and Sir Kenneth on Turner, on Seurat, on Cézanne is just as memorable in conciseness and brevity. On the whole the nineteenth and twentieth centuries will perhaps be found more consistently just in judgment and analysis than the preceding centuries. Seghers and Fragonard seem to me the most disappointing omissions, and Grünewald the only case of an artist treated from a wrong angle. The background of trees, meadows and brook behind the two conversing hermits on the Isenheim Altar has for one who feels at home in the forests of Germany a sense of lovable seclusion and repose which all the grotesqueness of bare jagged fir branches and dangling mosses cannot affect.

However, what is probably in the end of greater importance about *Landscape into Art* than its choice of artists and its individual descriptions and interpretations is the curious (and very English) sense of ethical values firmly stated and adhered to, which permeates the whole book. A characteristic instance of that is Sir Kenneth's—no doubt reluctant—verdict on Salvator Rosa and such Rococo painters of picturesque visions as Magnasco.

'Just as, in the eighteenth century, that winter of the imagination, the landscape of fact degenerated into topography, so the landscape of fantasy degenerated in the picturesque, more particularly into that branch of the picturesque

which derived from Salvator Rosa. Today, after a century of more intense romanticism, it is hard to see how the world of taste was so long deceived by the second-rate talents of Salvator. But we must realize that he was, in a minor degree, a kind of Byron. He opened a new vein of sentiment, and discovered the rhetorical form in which it could be conveyed. That his sentiments were exaggerated and his means of expressing them often commonplace was a factor in his popularity. The artist who invents stage properties which can be borrowed with effect, is sure of success, and the minor painters of the eighteenth century came to rely on Salvator's *banditti* and shaggy fir trees as their successors of the 1930's relied on Picasso's harlequins and guitars. Neither would have obtained currency had they not also fulfilled some half-realized dream of the period. As Dr. Johnson said of Sterne: "His nonsense suited their nonsense." The nonsense which the eighteenth century required was some escape from its own oppressive rationalism. Among the results were the Hell Fire Club and *Castle of Otranto*.'

It is this moral sincerity which gives Sir Kenneth the courage to start his chapter on *The Landscape of Fact* with the maxim: 'Facts become art through love,' and to exemplify this by analyses of Hubert van Eyck and Bellini. The same firm convictions no doubt attach Sir Kenneth to Constable and Wordsworth. As they do, he evidently believes that in all scenery of the countryside and life of the countryside 'our elementary feelings co-exist in a state of greater simplicity and consequently may be more accurately contemplated and more forcibly communicated.'

Fortified by these beliefs, Sir Kenneth is frank in his prognostications of the future of landscape painting. The twentieth century trend in art away from realism, the discovery of the function of art as creating pure æsthetic sensation, whereas landscape painting is always tied to associations as well, the necessity of specialization in science which destroys the unified vision of nature, and the microcosmic and macrocosmic expansion of nature which goes so far beyond anything accessible to the painter of landscape—all these factors are against the particular field of art which Sir Kenneth for the love of it has chosen to treat in his book.

'The best hope for a combination of landscape painting consists in . . . the use of landscape as a force for our own emotions. . . . It is possible that the emotions of excitement and awe which this terrible new universe arouses in us will find expression in some such way. . . . Expression is the art of the individual and is his protest against the restraints of society: and whether such an art can exist in the future is a question for economists, sociologists, physicists and crystal-gazers. As an old-fashioned individualist I believe that all the science and bureaucracy in the world, all the atom bombs and concentration camps, will not entirely destroy the human spirit; and the spirit will always succeed in giving itself a visible shape. But what form that will take we cannot foretell.'

**Nikolaus Pevsner**

## FROM HOXTON TO COPAN

FREDERICK CATHERWOOD ARCHT. *By Victor Wolfgang von Hagen. Introduction by Aldous Huxley. Oxford University Press, New York (London: Geoffrey Cumberlege).* 30*s*.

To have been the boyhood friend of Joseph Severn at Hoxton, a pupil of Soane at the Royal Academy, and the lover of Lady Westmoreland in Rome; to have spent three years drawing the monuments of Egypt and six weeks, disguised as an Egyptian officer, drawing the Dome of the Rock, then forbidden to unbelievers and never before entered by any European antiquary; to have built the first panorama in New York and the first railway in South America—which was also mile for mile the most expensive railway ever built anywhere; to have helped to rebuild San Francisco after the great fire of 1849 and to have been deeply involved in the promotion of Benecia as its rival port; above all, to have given the world, at the expense of one's health and the risk of one's life, the first accurate record of the Mayan art of Central America and Yucatan—such a career, crammed into a life of fifty-five years, might be thought to merit for its owner at least an obituary notice. Yet when nearly all the 385 passengers of the American steamship *Arctic* went to the bottom of the Atlantic in 1854 (the crew having successfully taken to the boats), it was many days before anyone noticed that Frederick Catherwood was of their number. Then the *New York Herald* gave the fact a single line: 'Mr. Catherwood also is missing.' Nothing more.

For all but a century the silence has been unbroken, save for a short article in the *Dictionary of Architecture* and a few incidental references in other works. Catherwood, as Mr. von Hagen says, always was unlucky: his drawings of the Dome of the Rock were never published, his panorama was burnt down after less than five years, his favourite architectural projects remained on paper, and the termites ate the sleepers of his railway almost as fast as they could be laid. In his last moments he may have reflected that the splendid plates of *Views of Ancient Monuments in Central America, Chiapas, and Yucatan* (all reproduced by Mr. von Hagen) would remain as his permanent memorial—and of course they do. Yet in spite of them, and in spite of the introduction to them in which he guessed so shrewdly at the true age of the Mayan remains, dissociating himself from the fantastic theories current at the time, there must be many people generally well informed about the arts in whose minds Catherwood's name will provoke no immediate response. In giving him a biographer as sympathetic and as thorough as Mr. von Hagen, himself an explorer and a pioneer in more than one field of knowledge, Fate has made some amends for her harsh behaviour towards him.

**Marcus Whiffen**

## THREE PRIMERS

AN INTRODUCTION TO TUDOR ARCHITECTURE. *By John Harvey. Art and Technics.* 10*s*. 6*d*.

AN INTRODUCTION TO GEORGIAN ARCHITECTURE. *By Professor A. E. Richardson. Art and Technics.* 25*s*.

AN INTRODUCTION TO MODERN ARCHITECTURE. *By Neville Conder. Art and Technics.* 10*s*. 6*d*.

Three new volumes of Messrs. Art and Technics' useful series have come out recently. They are, as their predecessors on Regency and Victorian architecture, handy and well illustrated. The illustrations to the new volumes are in all three cases remarkably well chosen and often individual buildings not easily found in current books. In the case of Georgian and modern architecture, this was by no means an easy task, but both Professor Richardson and Mr. Conder have fulfilled it admirably. As regards texts, Mr. Conder's is probably the most successful, though, as all the other volumes of the series deal with British buildings only, it seems a pity that Mr. Conder shows about twice as many foreign as home examples. But his technique of presenting the history and the topical arguments in favour of the modern style is just as it should be, and what he says in the way of appreciation both warm and convincing. Mr. Harvey, whose warmth in pleading for Perpendicular England is known, appears here strangely subdued. Too much of his text is a catalogue of masons and their works, and too little an introduction to their style as demanded by the terms of reference of the series.

Professor Richardson, the doyen of our Georgians, has, for reasons not easily seen, been given more than twice the space of the others. This has made it possible for him to make a spectacular display of about 180 photographs. But for his text he has, alas, taken quite obviously less trouble than Messrs. Harvey and Conder. There is little of the enthusiasm and art which many of us remember so vividly from his lectures, and the sketches in the text are also not of the Professor's most attractive. They are carelessly captioned (three cupolas appear as 'London,' 'By Robert Mylne, 1770–1810,' and 'Clock-tower near Rickmansworth'). Interesting points are the emphasis on Decker's book as an example followed by Early Georgian architects, and on French buildings and books as an example for the Later Georgians.

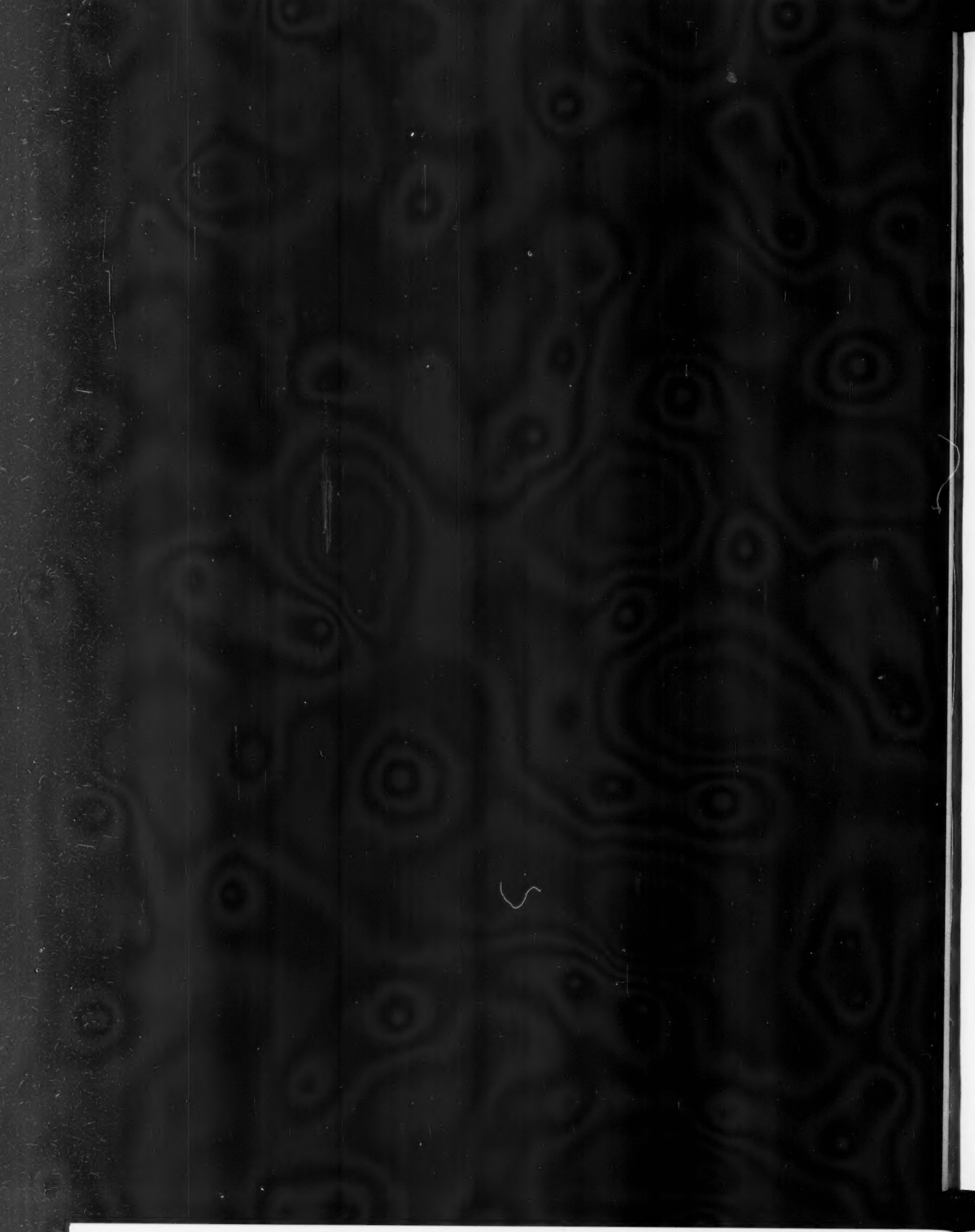
Professor Richardson—that transpires in many a passage throughout the book—strongly believes in the lesson which our age can learn from the eighteenth century. Mr. Harvey believes equally strongly in the topical value of the fourteenth and fifteenth centuries, and Mr. Conder believes in the exclusive validity of the contemporary style for contemporary society. Which shows that the publisher has chosen his authors with discrimination.

**J. V. Lamport-Jones**

## *Shorter Notices*

LONDON COUNTY COUNCIL SURVEY OF LONDON. *Vol.* XXI. *Tottenham Court Road and Neighbourhood. (The Parish of St. Pancras, Vol.* III), *County Hall,* 1949.

The Survey of London volumes under the editorship of Mr. Walter Godfrey are going from strength to strength (even if at a sorry pace). This new volume is distinguished from its predecessors by its almost exclusive nineteenth century interest. Accordingly even High-Victorian buildings such as Brandon's Catholic Apostolic Church are included. Until recently 1800 had been the date beyond which the Survey did not go. The high-lights of the Tottenham Court Road neighbourhood which extends from the Park Villages and Osnaburgh Street (with the Buxheim stalls!) to Woburn Place and Tavistock Square—as a glance at the table of contents (in the regrettable absence of a map) will show—are Euston Station and University College, both written by Mr. Summerson. **N.P.**



ANTHOLOGY

# Henry Moore, 1753

Notwithstanding I have told you my design of considering minutely the variety of lines which serve to raise the ideas of bodies in the mind, and which are undoubtedly to be considered as drawn on the surfaces only of solid or opake bodies: yet the endeavouring to conceive, as accurate an idea as is possible, of the *inside* of those surfaces, if I may be allowed the expression, will be a great assistance to us in the pursuance of our present inquiry.

In order to my being well understood, let every object under our consideration, be imagined to have its inward contents scooped out so nicely, as to have nothing of it left but a thin shell, exactly corresponding, both in its inner and outer surface, to the shape of the object itself: and let us likewise suppose this thick shell to be made up of very fine threads, closely connected together, and equally perceptible, whether the eye is supposed to observe them from without, or within; and we shall find the ideas of the two surfaces of this shell will naturally coincide. The very word, shell, makes us seem to see both surfaces alike.

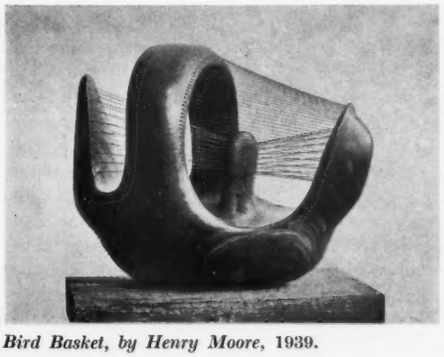
The use of this conceit, as it may be called by some, will be seen to be very great . . . and the oftener we think of objects in this shell-like manner, we shall facilitate and strengthen our conception of any particular part of the surface of an object we are viewing, by acquiring thereby a more perfect knowledge of the whole, to which it belongs: because the imagination will naturally enter into the vacant space within this shell, and there at once, as from a centre, view the whole form within, and mark the opposite corresponding parts so strongly, as to retain the idea of the whole, and make us masters of the meaning of every view of the object, as we walk round it, and view it from without.

WILLIAM HOGARTH (*Analysis of Beauty—Introduction*), 1753.

MARGINALIA

### This Month's Anthology

Few eighteenth-century disquisitions on æsthetic theory contain so much that is still to the point today as Hogarth's *Analysis of Beauty*, written to fix 'the fluctuating idea of Taste.' In the January Anthology Hogarth appeared as the first English expositor of functionalism; in the passage quoted this month the suggestion of 'very fine threads, closely connected together' as an aid in the comprehension of space looks forward in a curious way to certain pieces of modern sculpture, such as Henry Moore's *Bird Basket* illustrated here.



1 *Bird Basket, by Henry Moore*, 1939.

### The Gowers Committee Reports

The committee appointed by the Chancellor of the Exchequer in December, 1948, under the chairmanship of Sir Ernest Gowers, 'to consider and report what general arrangements might be made by the Government for the preservation, maintenance and use of houses of outstanding historic or architectural interest which might otherwise not be preserved, including, where desirable, the preservation of a house and its contents as a unity,' has completed its job, and its report has been published by HM Stationery Office (3s.). The committee, as was to be expected from its composition—the other members were Lady Anderson, W. H. Ansell, Anthony Blunt, Sir Cyril Fox, Sir John Imrie and J. C. Little—has been very thorough. It heard evidence from an impressive cloud of witnesses, the Board of Inland Revenue, who 'did not think it proper to give evidence before us,' being the most notable absentee. Its report is both outspoken in its criticism of present ills—'We think it unfortunate that a decision whether opencast coal mining is to be carried on at places like these [Wentworth Woodhouse and Staunton Harold] should rest . . . with a Minister responsible for producing coal' and 'Of Government Departments it is certainly true that they ruin any fine house that they may occupy'—and definite in its constructive recommendations.

Briefly, the main recommendations are as follows. Two statutory bodies, to be known as Historic Buildings Councils, should be set up—one for England and Wales and one for Scotland—and entrusted with duties both general and specific for furthering the preservation of houses of outstanding historic or architectural interest; the English Council should be appointed by the Chancellor of the Exchequer, while the Scottish Council should be appointed by him in consultation with the Secretary of State for Scotland. These Councils, consisting mainly of experts, should take over the listing of buildings of special historic or architectural interest under the Town and Country Planning Acts and should become the central authorities for advising Government departments and others on all matters relating to such buildings and their contents; to this end they would absorb the National Buildings Record and its Scottish Council and establish close co-operation with the Royal Commissions on Ancient and Historical Monuments. In addition, the Councils should compile lists of houses of *outstanding* historic or architectural interest, to be known as 'designated' houses, and should be empowered to list such of the contents as go to make up the 'unity' of a designated house in cases where preservation as a unity is important; the lists of designated houses should be published, while the lists of contents, though not published, should be available for inspection, the owners of listed contents being required to give notice to the appropriate Council of any intention to remove them. In order to get rid of the confusion caused by the existence of two different statutory provisions for the protection of historic houses, the Ancient Monuments Acts should be amended so as no longer to apply to such houses, leaving them subject only to the relevant provisions of the Town and Country Planning Acts.

The policy of the Historic Buildings Councils, in the opinion of the committee, should be to ensure that designated houses should, so far as possible, be preserved as private residences occupied preferably by the families connected with them. With this object in view, it is recommended that owner-occupiers of designated houses should be entitled—subject to their showing them to the public and certain other conditions—to the following tax reliefs: relief from income tax and surtax in respect of approved expenditure on repairs and maintenance; relief from death duties on the house, listed contents and 'amenity land' so long as they are not sold, and relief from death duties on property assigned to trustees to maintain the house. In cases where the owner was not the occupier special provisions would apply.

These proposals have everything in their favour. It is true that the REVIEW's respected contemporary, *The New Statesman and Nation*, has protested that the proposals respecting tax relief are 'tantamount to proposing that the general body of taxpayers should subsidize one particular category of wealthy people simply because they hold one special type of property.' But even if one accepts the somewhat naive definition of wealth that is implicit in this there is a sufficient answer to the objection in the report itself: 'The preservation of these houses is a matter of public concern. Those who undertake it are doing what is not the less a public service because it may happen to coincide

with their private interests.' *The New Statesman's* counter-proposal, that the state should equip the National Trust with funds to enable it to take over approved houses without endowment, seems not to have been very carefully thought out; such a measure would do nothing towards ensuring the preservation of houses whose owners did not wish to make them over to the Trust—unless, of course, the Trust were given powers of, and funds for, compulsory purchase in all such cases. The Gowers Committee's proposals meet pretty well every thinkable contingency. They offer a practical solution to a problem which becomes more urgent every month. It is the duty of all who value our architectural heritage to press for their implementation.

**Ham House, Ken Wood House**

Ham House, near Richmond, was presented by its owner to the National Trust in 1948. The Trust made it over on long lease to the Ministry of Works. The contents were purchased by the Victoria and Albert Museum, and now the house is open to the public as one of the museums of London. The house, built in 1610, remodelled in 1637-38 and again in 1673-75, is not specially remarkable as a piece of architecture. Of its interiors only the staircase is of the first æsthetic order (see the illustration on this page), the earliest in England with a spacious open well and a massive classical balustrade showing large rectangular panels of trophies, etc., in openwork carving. The stucco work also is noble, and the whole for its date 1637-38 extremely progressive. Other rooms are in the more exuberant style of the 1670's, particularly the north drawing room with its crazy, fat, stumpy barley-sugar columns flanking the fireplace. The pictures are nothing very special, but some of the furniture belongs to the best of the seventeenth century in England. They illustrate the moment when shapes are becoming bulgier and upholstery more generous and comfortable.

*3, main staircase of Ham House, recently opened to the public.*

At Ken Wood on the other hand—now taken over by the London County Council and reopened at last after eleven years of war and postwar closure—the furniture is on the whole surprisingly uninteresting. But of the pictures—always one of the joys of London: the late Rembrandt self-portrait, the Vermeer, the splendid Cuyp, a superbly arrogant van Dyck, the Reynoldses and Gainsboroughs and so on—a good number have been cleaned, and the effect is indeed a revelation. The Rembrandt has become silvery-cool and as precise in its composition as a Poussin, while the Lady Howe of Gainsborough turns out to have been originally of most obtrusive mauvy-pinks.

2, The Road to Rome, Anno Santo, 1950, *a drawing by Osbert Lancaster from* The Villa Diana *by Alan Moorehead to be published soon by Hamish Hamilton.*

**Live Architecture**

Contemporary architecture is to be included in the 1951 Festival in the form of a 'live architecture' exhibition in the east end of London, linked with the South Bank exhibition by a special service of motor launches landing at West India Dock pier. The site, henceforward to be known as Lansbury, is on the borders of Stepney and Poplar where severe bomb damage was done during the war, and is part of the first large-scale reconstruction area to be laid out by the London County Council.

Lansbury is eventually to consist of a self-contained residential neighbourhood of 124 acres, with a population of between nine and ten thousand, about 42 per cent of the pre-war population. A start has been made on the first section of 30 acres, and this will be the subject of the exhibition in 1951. These thirty acres will contain flats, terrace housing, old people's homes, two churches, two schools, shops and a market place. They will serve as a full-scale sample of the British post-war housing and replanning effort at its best, special care having been taken by the LCC, in conjunction with the Festival of Britain, to achieve a high standard of design, by careful planning, by a wise choice of architects and by co-ordination of the whole scheme under the supervision of the LCC architect. Nevertheless, in order that the scheme shall fairly represent housing in Britain at this time, expenditure has not been allowed to exceed the limits imposed elsewhere.

The only abnormal expenditure will be on behalf of the Festival of Britain, in order to display the scheme to visitors during the summer of 1951. The Festival will also put up two temporary buildings, on a portion of the site later to be occupied by a health centre, to accommodate exhibitions dealing with town and country planning and building science. These are being designed by J. C. Ratcliffe. The co-ordinating architect for the exhibition layout will be Anthony Chitty.

The exhibition area of 30 acres will contain 538 dwellings in the form of flats and houses. Work on many of these has already begun, and work on all will have begun by the time the Festival opens in May, 1951. By then, a number will be finished, and during the Festival about 300 families will be in occupation. One or two flats and houses will be furnished and put on view to the public. By then, too, the two schools, the shops, the market and one of the churches will be in use. Such buildings as are still unfinished will be used to display the technique of modern building.

A model of the whole scheme has lately been exhibited at County Hall. The layout and some of the flats have been designed within the LCC; otherwise the various buildings are by private architects commissioned by the LCC in consultation with the Architecture Council of the Festival of Britain. The buildings that promise to be the most successful are the housing by Graham Dawbarn, G. A. Jellicoe and Bridgwater and Shepheard, the old people's homes by Booth and Ledeboer, the primary school by Yorke, Rosenberg and Mardall, and the shops and market place by Frederick Gibberd. All the architects have been left a fairly free hand, subject to the requirements of the plan and the limitations of cost,

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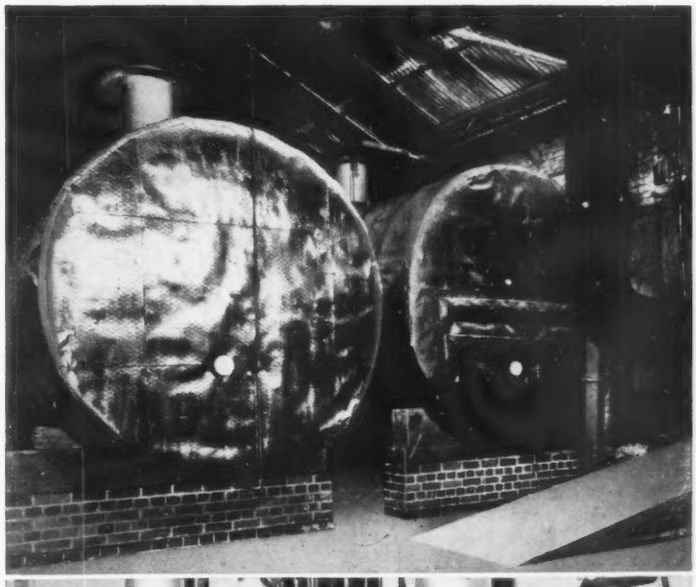

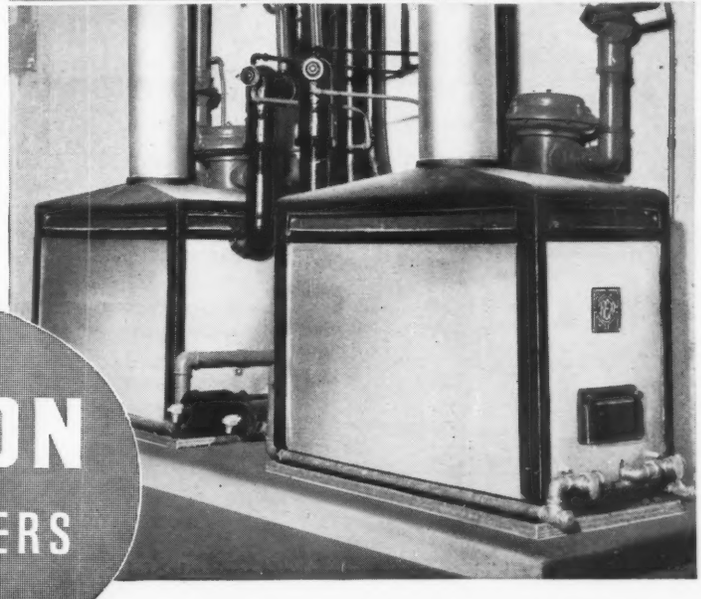

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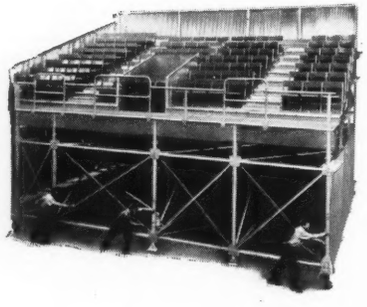

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but have been recommended, in the interest of consistency, to observe certain practices in common; for example, when they build in brick to use yellow London stock bricks, and when they use sloping roofs to keep to a fairly low pitch, both these being in accordance with east London traditions.

### Restoration by Destruction

Many complaints have been heard during the last five years about the deplorable state of repair of Chiswick House, the villa which Lord Burlington built for himself and which is amongst the *incunabula* of English Palladianism apart from being a work of art of very high order. The historical importance of house and gardens has already been discussed in detail (THE ARCH. REV. May, 1944, and November, 1944). The Ministry of Works has now at long last taken action. Workmen are busy restoring the garden to its original form known from engravings, and scaffolding is up outside the house. But whereas the original form of the garden is only overlaid by later untidiness, the same cannot be said of the house. The house was enlarged in 1788 by two wings designed by James Wyatt. These the Ministry of Works has decided to pull down. Surely here is a case of unjustifiable purism. The purity of Westminster Abbey, it may be argued, is affected by the Tudor style of Henry VII's Chapel, the purity of Hampton Court by Wren's additions. Is Wyatt's art so blatantly inferior to Burlington's and Kent's? The case is at least arguable, and as long as there is any possibility for argument, destruction should not be resorted to. Besides, there was another equally strong reason to preserve the wings. The villa should be more than a museum. It could, as one group of Chiswickians has pointed out and is still pointing out, become a cultural centre of the borough, used for concerts, exhibitions, and even parties. But the shapes of the Burlington rooms are for all such purposes clearly less suitable than those in the wings. So the usefulness of the building to the southwest of London is seriously impaired by this act of destruction as well.

### Copied for the Purpose

The accompanying photographs—believe it or not—are of the new British Embassy in Rio de Janeiro, which was recently completed, to the design of Robert R. Prentice, at a cost of about £400,000. The captions under the photographs

4 '*In design the building is traditional and the architect has been influenced by the works of the Adam brothers.*'

5, '*the design of the ceiling to the Ballroom or State Reception Room is based on that of a ceiling in Wynn House, St. James's Square, London.*'

are quoted from the description of the building issued by the Ministry of Works, which summarizes its history as follows:—

> 'Until recently the Ambassador occupied rented houses in various parts of the City. In 1937, however, it was decided to build and we acquired a site in Rua Sao Clemente. . . . In 1938, Mr. Robert R. Prentice, FRIBA, a British architect practising in Rio, was appointed by HBM Ministry of Works but the declaration of war in 1939 unfortunately prevented the scheme proceeding. In 1944, a revised programme was agreed and Mr. Prentice was requested to prepare sketch plans and elevations in collaboration with the Ministry of Works. The plans were approved in 1946 . . . and the foundation stone was laid by Her Excellency Lady Gainer on March 22, 1947.'
>
> 'The furniture throughout,' we read later, 'has been selected by the Ministry of Works' Controller of Supplies. The pieces comprise many fine antiques, and *beautiful reproductions* (AR italics) of furniture of the eighteenth and early nineteenth centuries in the styles of the great masters such as Chippendale, Hepplewhite, Adam, Sheraton and others. . . . In the small Drawing Room the antique mahogany and satinwood bureau is interesting on account of the figure of "Britannia" inlaid on the small cupboard door. . . . The four long stools in the Reception Hall are *modern reproductions* (AR italics) of those at Osterley Park. . . . The Dunlop Rubber Company have kindly presented a portrait of Canning, which they have had *copied for the purpose* (AR italics) from the Lawrence portrait belonging to Christ Church, Oxford.'

So this is how modern Britain, the Welfare State, is to be represented in the capital of Brazil—by a kind of museum in which many of the exhibits are fakes. It would appear that the only contemporary works of art in the whole building are the five panels by John Piper that were exhibited at the Victoria and Albert Museum last winter. If the authorities responsible had deliberately resolved to persuade South America that Britain is a tradition-bound country in which the arts of design died long ago they could hardly have gone about it more thoroughly.

### Correction

The mural painting in the Boavista Bank illustrated in *Wall Surfaces in Brazil* in the April, 1950, number of the REVIEW was incorrectly attributed to Henrique Coimbra. The artist was Portinari.

## INTELLIGENCE

The Bouwcentrum in Rotterdam is organizing six-day standard trips for foreign architects, engineers, contractors and manufacturers. Leading magistrates, officials of governmental and municipal housing institutions, townplanners, students and all those whose activities are closely connected with building are included. Travel is by touring car which will visit, in addition to housing sites, the reconstruction works of Rotterdam, the biggest inland navigation lock under construction in Europe and the reclaimed Zuyderzeepolders. Also Amsterdam with its canals, Arnhem, the old Delft and Volendam, famous for its costumes, are included in the trips. Travelling and hotel expenses will amount to £25. Subscriptions for the tour, which will take place in the second and fourth weeks of September, can be made either individually or in groups at the Foreign Excursions Section, Bouwcentrum, Rotterdam. Closing date is August 15.

The Jury entrusted by the Royal Institute of British Architects with the award of the London Architecture Bronze Medal have made their award for the period of three years ending December 31, 1949, in favour of the Wells House (Housing Scheme), Well Walk, Hampstead, designed by C. H. James.

## EXHIBITIONS

The work of Renato Guttuso was introduced to the London public at the Hanover Gallery with a warm, indeed, positively glowing commendation from Mr. Douglas Cooper. 'I know of no young painter at work in Europe to-day,' he wrote in the preface to the catalogue, 'whom I consider more interesting, more talented, more individual, or more considerable.' Praise indeed, from a critic at once so cosmopolitan and so selective as Mr. Cooper. And certainly Guttuso is a good painter—as good, let us say, as Vlaminck. The comparison is not a chance one: in a roundabout way Guttuso reminds one of Vlaminck. In the paintings of both, that is, one finds *brio*, decorative power and a sense of form; but too often these qualities seem to be at the service of a view of things which is essentially commonplace. How, then, Mr. Cooper's enthusiasm? The explanation, it seems, is that Mr. Cooper has joined the back-to-life brigade: 'Guttuso is one of the first young painters in whose work modern art comes nearer once again to modern life.' And if you believe that this much talked about rapprochement between modern art and modern life is to be effected by the simple means of painters painting simple things in a way simple people can understand, Guttuso will do pretty well for one of your heroes. Even if lacking in poetry his work does, at its best, attain to a kind of rhetoric.

No rhetoric at Gimpel Fils, where we had Kandinsky on the walls and Lynn Chadwick on the floor, on tables, and suspended from the ceiling. No comfort for back-to-lifers either; indeed, this was as distant a retreat from the too pressing life of an overheated capital as June had to offer. Kandinsky died in France in 1944 at the age of 78, and this was the first posthumous exhibition of his art seen in this country. That art, nearer to music than the art of any other painter, needs no discussion

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7, Sicilian Labourer, *by Renato Guttuso at the Hanover Gallery;* 8, Martyrdom of San Sebastian, *by Tiepolo, and* 10, The Lake of Geneva, *by J. M. W. Turner, at Agnew's Summer Exhibition;* 9, The Warrior, *by Morto da Feltre from 'The Art of Mannerism' at the Arcade Gallery.*

here, though for the sake of the record it may be noted that this exhibition consisted of thirty-odd gouaches and watercolours, the earliest of them from 1911 and the majority from 1930 on. Lynn Chadwick's mobiles were noticed here when they were shown in the same gallery last year. Then, if memory serves, they were all of the suspended kind; he now makes them with their own bent metal stands as well. Unlike Calder's mobiles, they contain no reference to animal forms, but seem rather to belong to the realms which flying saucers chiefly inhabit. So much of their charm is due to their extreme delicacy, which enables the spectator to see them purely as shapes in movement, that one regrets Mr. Chadwick's evident ambition to do the same thing on a much larger scale; at least, the big pieces did not seem to have gained anything that justified their extra size.

The Arcade Gallery exhibitions always manage to combine good things and strange things in a way that gives them a flavour of their own. In the latest, 'The Art of Mannerism,' the flavour was the more subtle in that the best things were often the strangest as well; for that is in the nature of Mannerism. Certainly one of the strangest was Morto da Feltre's *Warrior*, reproduced on this page; the extraordinarily concentrated gaze of this ambiguous figure (dwarf or giant?) is something which will not easily be forgotten by those who experienced it. Ambiguity is the quintessence of Mannerism; here it is a spatial ambiguity, while in the boy-girl *Eve* of Jacopo da Empoli it is ambiguity of another kind. The latter picture exemplified that elegance which the writer of the introduction to the catalogue rightly emphasized as forming so much of the appeal of Mannerism; the link with Surrealism, which gives it a certain topicality, came out most clearly in a little *Juno and Minerva* by Johannes Rottenhammer, painter to the Court of Rudolph II in Prague, with a painted border containing a foretaste of Picasso (and Francis Bacon) in its part-bird, part-human monsters. Among the other artists included in this admirable exhibition were Volterra, Niccolo del'Abbate, Vasari, Michiel Coxie, Bartholomæus Spranger, and Abraham Bloemart; Mannerist portraiture was represented by Bronzino's *Azolino da Romano*, and an exquisite group of three children by Sofonisba Anguisciola.

The exhibition called 'William and Mary and their Time,' held under the auspices of the Anglo-Netherlands Cultural Convention at the Victoria and Albert Museum (where it remains open until August 20), is a disappointing affair. How could any exhibition with such a title that failed to take cognizance of the existence of Sir Christopher Wren be otherwise? In general, the organizers seem to have been uncertain whether they were out to illustrate the art of the period or its political history; the result is an excess of portraits, some stately but others merely *stad*-ly. Still, there are fine things, and the exhibition would be worth a visit to see Jan Blommendael's bust of King William (from the Mauritshuis) alone.

The summer exhibition at Agnew's was dominated by a splendid Turner of *The Lake of Geneva*. Landscape of the preceding age was worthily represented by two pieces of Hubert

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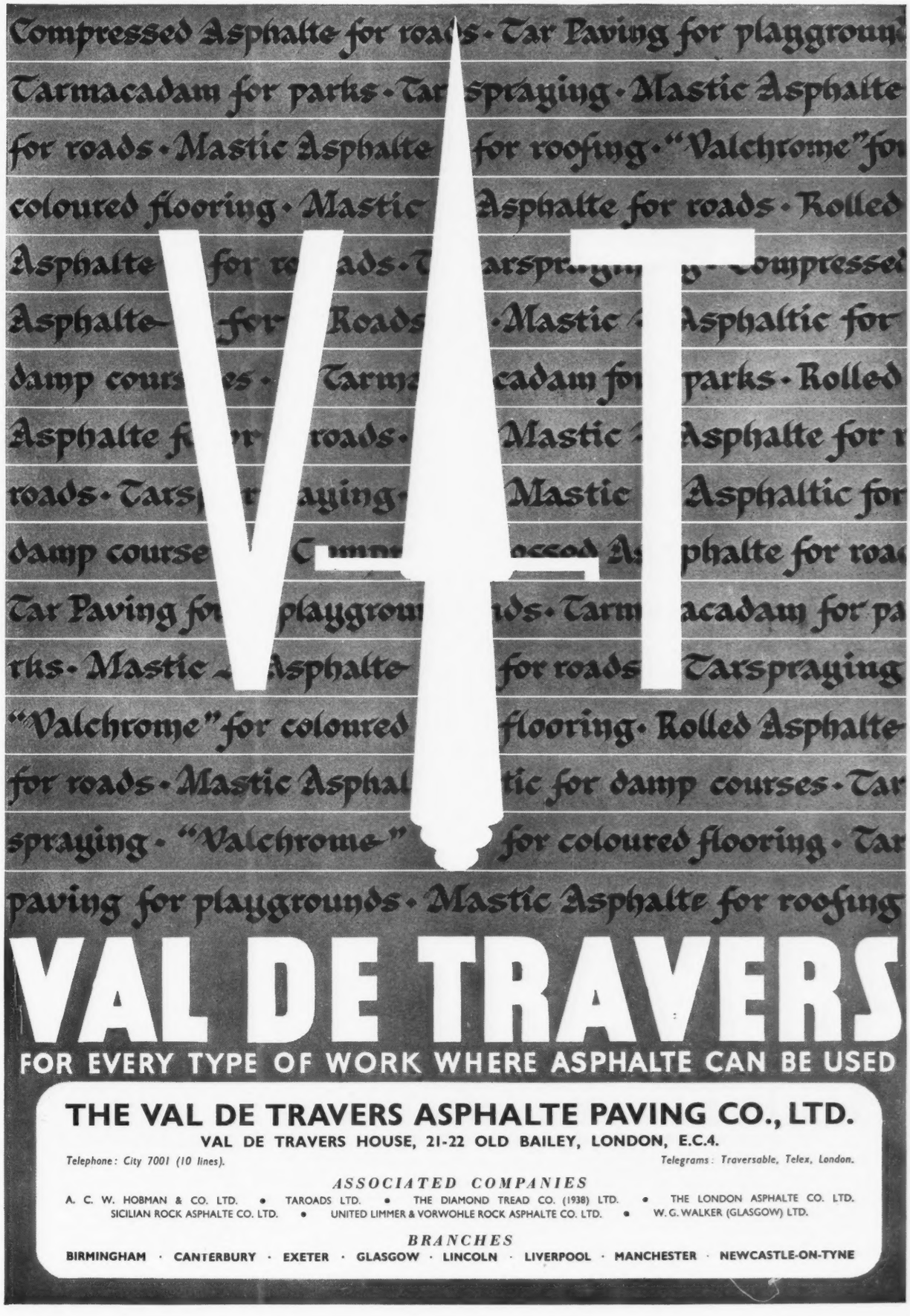
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Robert, Mannerist portraiture by Bronzino again (*Don Garcia de' Medici, third son of Cosimo the First*), and late Baroque painting, most notably, by a *Martyrdom of San Sebastian* by Tiepolo.

## CORRESPONDENCE

*To the Editors*
THE ARCHITECTURAL REVIEW

SIRS,—In a recent issue you published an article by Marcus Whiffen entitled 'Paint versus Prejudice,' in which reference was made to the painting in 'heraldic' colour of the George III Statue at Weymouth.

Being the sculptor responsible for the painting, I had previously given this question of polychromatic and also chryselephantine statuary considerable thought, and arrived at a simple but definite conclusion which I would like to put to your readers, particularly now that Marcus Whiffen has raised the question.

Sculpture is produced in two separate and distinct ways. The first method is by using a modelling technique in which a clay model is produced by a 'putting on' process or an 'adding' process, and the result is copied by various methods in a permanent material like stone. This copy is often not even by the artist, and the original concept of 'putting on' remains, while the character of stone is lost. The second method is by direct carving in the stone by the artist and very often 'in situ.' This I hold to be a fundamental and most characteristic procedure.

The George III Statue at Weymouth belongs to the first method and is a model purely and simply with all the Romantic naturalism the artist could summon and typical of the period. It is made of Coade artificial stone and the sculptor believed to be Sealy, of Coade and Sealy. Despite the loss of the secrets of manufacture of this artificial stone, and I believe our knowledge of firing temperatures is all that is lacking, we do know it is made of special 'clay.' In my view, the Statue has little sculptural meaning. It has no stone quality and little formal significance, and might just as easily have been plaster or metal. The aim was pure realism and the result has very little three-dimensional meaning.

I believe that by painting such a work one cannot alter its sculptural character. It had first been painted cream to look like stone because the authorities considered that painting was essential to the preservation of the Coade stone from the sea air. Later it was painted green in a poor attempt to make it look like bronze, a typical Victorian sham, but it was still obviously paint not bronze, and green at that.

If we could paint it green and not affect a change in the form, painting it other colours would not change it surely, because only three-dimensional form is of value in any sculpture. So I believe Marcus Whiffen right. No change has taken place, except that the general public now see the statue for the first time. However, to paint a work which has true sculptural value is quite another matter. To do so would be to kill the real stone character. The very feel of the stone would be lost, and painting, I think, would interfere with that sense of collaboration between medium and artist which is the essence of true sculpture of any period.

Yours, etc.,
ERIC MORRIS.

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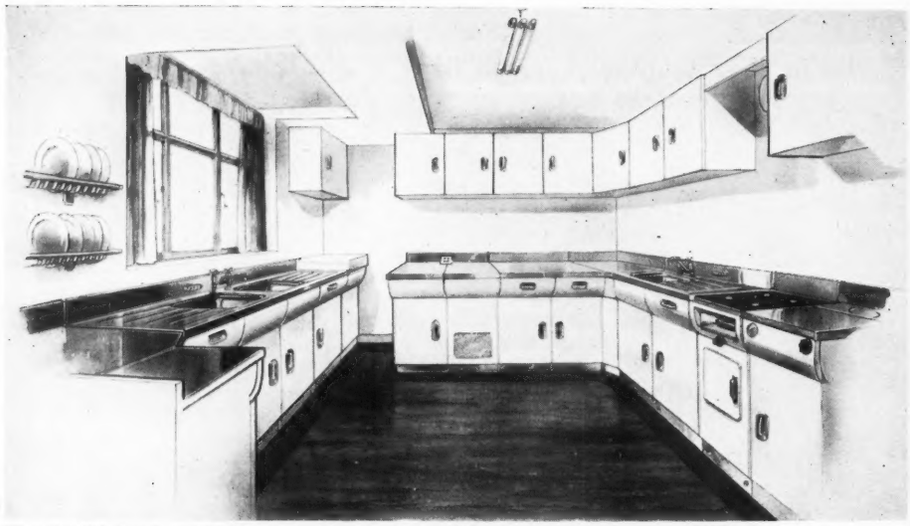

11 *The 'English Rose' model kitchen displayed in Messrs. Broad's new showrooms in Paddington.*

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This year continues to prove a boom year for new showrooms as firm after firm squares away to face the cold winds of competition ahead. Messrs. Broad's new showrooms in Praed Street are designed by John Grey, ARIBA, to display on three floors the extensive range of fireplaces, heating appliances and sanitary ware in which they specialize for the building industry.

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The fireplaces and heating appliances are displayed on the second floor, each as part of an individual room to present them in realistic settings, a wise policy, for the average customer can rarely visualize such a piece of equipment in an imaginary setting. Two of the fireplaces have been designed by Mr. John Grey himself and two others by Mr. R. Y. Goodden, RDI, ARIBA—a forward-looking policy on which Messrs. Broad's may be congratulated, for in the past fireplace design has often lagged. Another equally interesting example of this is a low-level moulded cistern designed by Messrs. Allen Bowden.

Another feature shown is a model kitchen equipped with a complete range of the 'English Rose' planned kitchen units made by C. S. A. Industries Ltd. These are designed to build up into a complete kitchen whatever its size, and include such units as storage cupboards in varying widths, to stand on the floor or fix on the wall, a 'Flavel' gas cooker, a 'Kelvinator' dual freeze unit—i.e., for ordinary refrigeration and frozen food storage, and a 'Hazel' domestic solid fuel boiler.

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